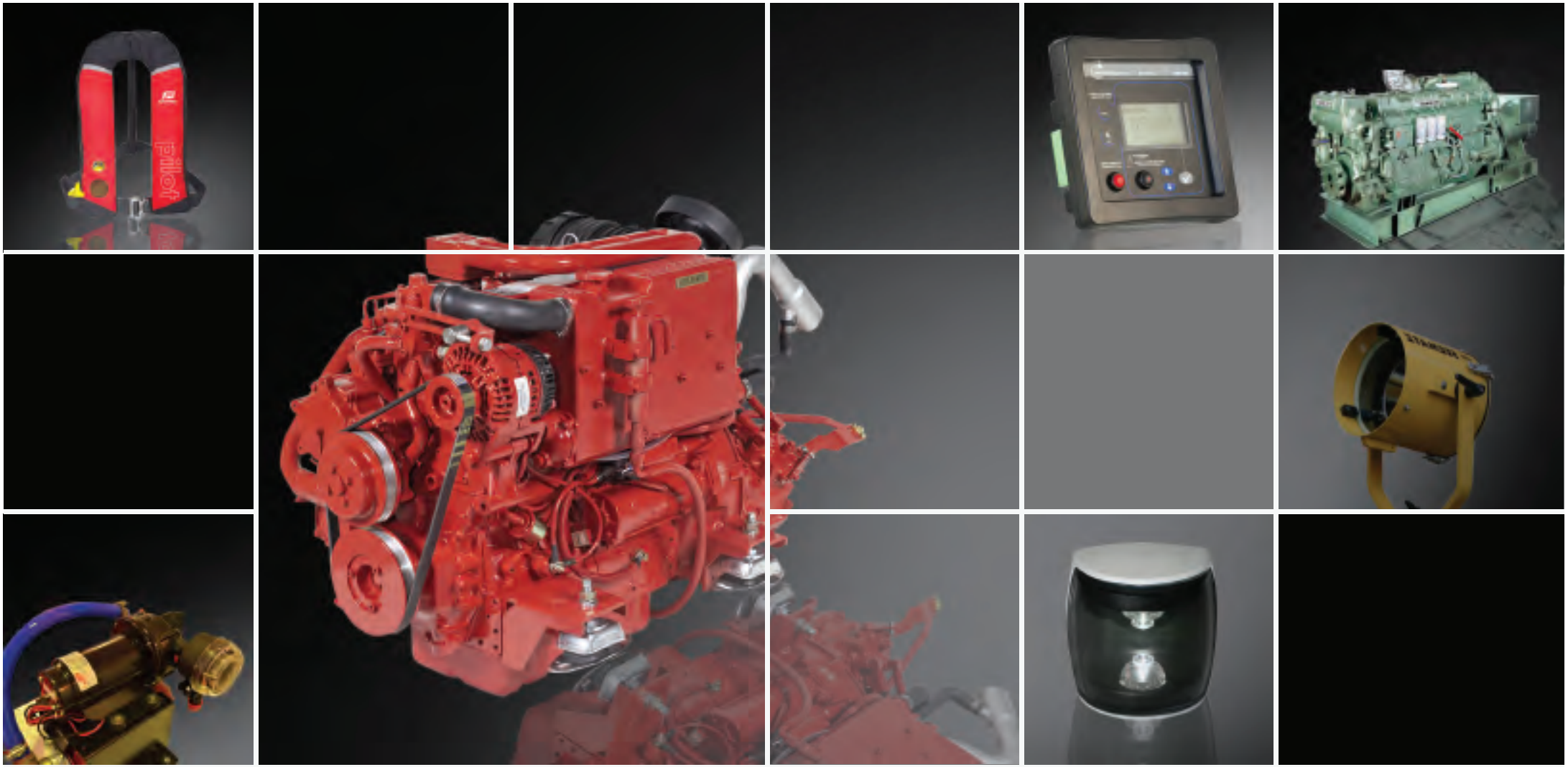


ROY'S MARITIME

Marine equipment in Asia Pacific

www.roysmaritime.com

The marine kiosk of Asia Pacific

Established in 2000, Roy's Maritime linked up with experienced and reliable marine companies to distribute their products and represent their name in Asia Pacific and notably Vietnam.

Area of Expertise and partners

Marine propulsion – Guascor and Beta Marine
Marine Transmission – Kobelt and Lecomble & Schmitt
Shaft & Propeller – Roy's Maritime
Security Equipments – Marinelec
Pumps and impellers – SPX Johnson Pumps
Maintenance service – Roy's Maritime
Marine Lights – Hellamarine
Searchlights & Wipers – Seematz
Liferaft, Lifejacket, fenders & Tenders – Plastimo
Marine Electrical system – Cristec and Schneider
Electronics & Navigation – AdvanSea and Plastimo
Marine valves – Autexier
Window blind – SolaCURE

Roy's Maritime is a marine kiosk distributing and delivering complete marine packages in Vietnam and some countries throughout Asia Pacific. From the marine propulsion to the transmission system; from the hydraulic system to the propeller, from the security and rescue equipment and even the marine lights.

"Excellence is the result of Experience" – Roy's Maritime

Our partners

Established in 1966 in Spain, GUASCOR provides a broad range of **diesel engine** for marine applications from 400 to 1700 HP. As of May 2011, GUASCOR is a part of Dresser-Rand Group, Inc.

Since 1987, BETA MARINE has developed a reputation for providing quiet and smooth running **marine diesel engines and generators.** With over 50 export distributors, BETA MARINE can distribute throughout the world from its factory in UK.

HELLA MARINE is based in New Zealand and manufactures **lighting solutions using advanced LED technology,** HELLA MARINE is represented by over 30 sales companies in 40 countries.

With over 40 years of experience, JOHNSON PUMP is one of the world's leading manufacturers of **pumps for marine applications.** Their products are sold all over the world through a network of nearly 100 authorized distributors and affiliated retailers.

Founded in 1983, CRISTEC is specialized in energy conversion mainly for **on-board electrical applications.** Through its network in over 50 countries, CRISTEC is able to provide reliable universal solutions.

Our partners

Established in 1989, MARINELEC TECHNOLOGIES is a specialist of **electronic security equipments** for the maritime sector. MARINELEC designs and delivers custom made systems for all types of ships in over 20 countries

Founded in 1970, SEEMATZ focuses on the production of **searchlights and wipers for marine** use. SEEMATZ-products are exclusively produced in Northern Germany by over 40 specialists.

Started in 1963, PLASTIMO has been providing a full range of **rescue equipment.** Their dedicated research and development teams ensure a unique and always improving product portfolio. PLASTIMO products are now being distributed in 90 countries.

Established in 1944, LECOMBLE & SCHMITT is the only French manufacturer to offer hydraulic **and mechanical steering systems** for pleasure boats, fishing and work crafts. Since 1998 LS has been a subsidiary of the industrial group

Founded in 1909, AUTEXIER manufactures corrosion resistants industrial, petroleum and **marine valves**. They offers a range of valves applications in Bronze, Aluminium, cupro. Their delivery program follows international material and manufacturing standards (ANSI, ASA, ASTM, DIN, ISO, JIS, BV)

Our partners

Ever since their beginnings in 1962, **Kobelt Manufacturing Limited** has been committed to manufacturing the finest marine controls in the world in accordance with classification societies (BV, Lloyd's, rina…)

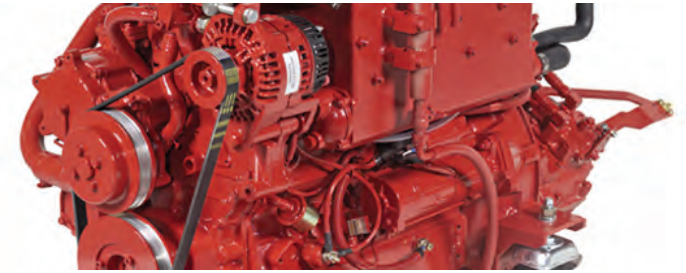
AdvanSea Combo and GPS units by Plastimo take full advantage of the latest cutting edge technology in GPS receiver, LCD displays and advanced marine electronic & navigation systems.

Based in the UK, Wave International manufactures the complete range of Wavestream™ filter systems that removes all trace oils and keeps bilge water within legal limits in accordance with Lloyds

With over 90 years of experience as a global specialist in Energy Management Solutions for Marine applications, Schneider Electric systems are proven highly reliable.

Located in Greater Manchester in the United Kingdom, SolaCURE are manufacturer of Lloyd's approved anti-glare and UV protection roller solar shades for the maritime industry.

Area of expertise



Marine Generator

Guascor - 200 to 1400 KVA
Beta Marine - 3 to 50 KVA

Marine Propulsion

Guascor - from 450 to 1700 HP
Beta Marine - from 10 to 150 HP

Marine Transmission

L & S - Hydraulic steering ststem

Marine Pumps

Heavy duty pump and impeller
Marine toilet

Area of expertise

Marine Electrical System

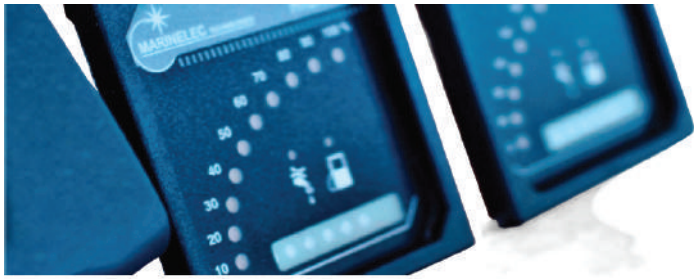
Battery monitor
Battery isolator
Battery charger

Marine Lights

Navigation lights
Courtesy lights
Heavy duty lights
Searchlights

Marine Safety

Life jackets
Life rafts
Rescue ring solas lifebuoy



Marine Security

Bridge watch alarm system
Fire and bilge detection
Level measurement gauges

Area of expertise

Marine Control Systems

Mechanical
Electrical

Marine Electronics And Navigation

GPS, AIS, VMF
Compass
Window blinds

Marine Filter Systems

Wavestream™ systems
Wavestream™ 3 4STAND System
Wavestream™ Stainless Steel

Marine Valve

Check valve
Globe valve
Gate Valve
Fire hydrant

BETA MARINE

Guascor®

Marine Generator

BetaSet Generating Solution

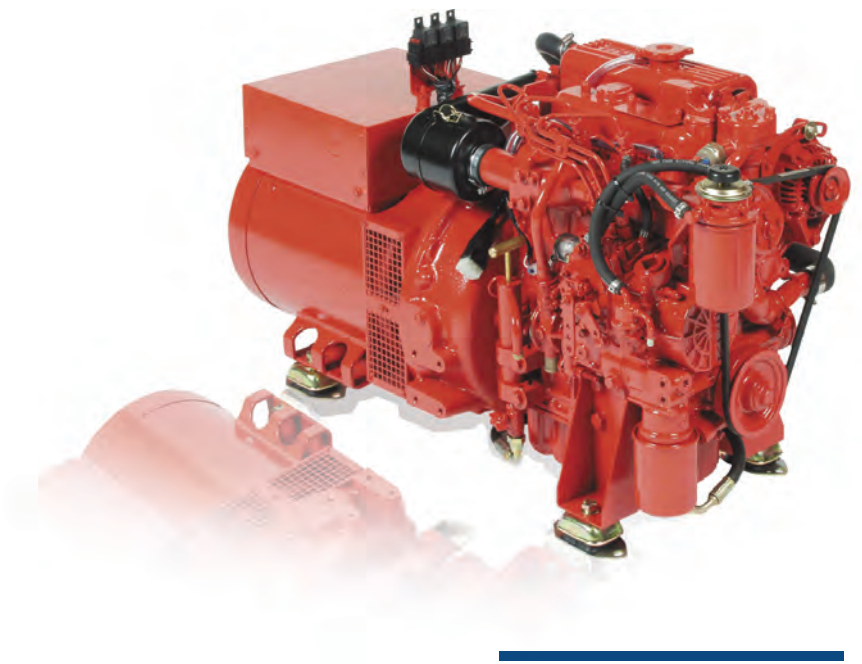
Beta Marine has considerable experience from over 20 years of manufacturing marine generating set for different applications: “Wide Beam” canal boats, passenger ferries, cargo boats, fast patrol boats, sailing yachts, barges, fishing boats. Trawlers, tugs, commercial vessels and “super yachts”.

The development of these generating sets has resulted in our standard range of marine generating sets based on Kubota diesel engines from **3.7kVA to 50kVA**; and we can also build to individual specifications.

We can supply most electrical voltages and frequencies from **230V single phase; 415V 3 phase**; or any other normal electrical requirement – **50Hz at both 1500, 3000 rev/min**, or **60Hz at 1800 and 3600 rev/min**.

ISO 9001

BUREAU VERITAS Certification



Lloyd's Register

BetaSet Specifications

- Heat exchanger cooling with fresh water and sea water pump.
- Water cooled exhaust manifold and water injection exhaust bend.
- 12 volt electric start system and stop solenoid valve, 2 wire grounded system.
- Combined start/stop, alarm and protection model with 3m connection cable.
- Speed governor according to ISO 3046 for diesel generating sets.
- Engine mounted sump drain pump.
- Marine rated generator operating at 0.8pf and 50Hz, ventilated drip proof enclosure with IP 23 protection, single bearing construction.
- Self regulating, self excited with terminal box and automatic voltage regulator.
- Steel feet with marine failsafe anti-vibration mounting.
- 5 years warranty for engine, 12 months warranty for other parts.
- Keel/box cooling versions are available and alternative specifications and requirements can be quoted on request.

kVA Rating - 1,500rev/min - 50Hz

Model	Single Phase kVA Max.	3Phase kVA Max.	Cyl's	cc's	Fuel	Length	Width	Height	Weight
BetaSet 7	7.2	7.2	3	899	2.1	88	43	59	237
BetaSet 10	9.7	10.1	3	1124	2.7	88	43	59	245
BetaSet 11	10.7	11.2	4	1335	3.0	97	46	59	267
BetaSet 12	12.3	13.0	4	1498	3.5	97	46	59	283
BetaSet 14	14.0	14.5	3	1647	4.3	94	56	71	390
BetaSet 17	16.0	17.3	4	1857	4.8	121	54	69	412
BetaSet 21	19.8	21.1	4	2197	5.6	127	54	69	454
BetaSet 26	25.3	26.2	4	3318	6.2	133	62	86	602
BetaSet 33	32.0	33.5	4	3318	8.4	145	62	86	670
BetaSet 40	38.5	39.6	4	3769	10.7	145	68	81	690
BetaSet 49	44.0	49.5	4	3769	11.6	153	66	88	735

BetaGen "Super Silence" Generating Solution

BetaGen Marine Generating Sets are manufactured with high quality marine grade acoustic housing that reduce the noise levels down to below 60dB(A) – equivalent to about half the noise level as perceived by the human ear.

BetaGen have been carefully designed to have compact dimensions and low weight, with all service connections brought to the outside of the housing – ready for a quick and easy installation. We also included in the design for ease of maintenance with quick release panels and special acoustic reduction material with attenuated air-intake and exhaust connection.

ISO 9001

BUREAU VERITAS
Certification

Lloyd's Register

BetaGen Specifications

- Quality zintec/steel acoustic canopy with 40mm sound insulated lining and removable panels.
- Water cooled Kubota diesel engine, naturally aspirated rated at 1500 or 3000 rev/min for operation in accordance with ISO 3046.
- Heat exchanger cooling with fresh water and sea water pump.
- Water cooled exhaust manifold and water injection exhaust bend.
- 12 volt electric start system and stop solenoid valve, 2 wire grounded system.
- Combined start/stop, alarm and protection model with 3m connection cable.
- Speed governor according to ISO 3046 for diesel generating sets.
- Engine mounted sump drain pump.
- Marine rated generator operating at 0.8pf and 50Hz, ventilated drip proof enclosure with IP 23 protection, single bearing construction.
- Self regulating, self excited with terminal box and automatic voltage regulator.
- Steel feet with marine failsafe anti-vibration mounting.
- 5 years warranty for engine, 12 months warranty for other parts.

kVA Rating - 1,500rev/min - 50Hz

Model	Single Phase kVA Max.	3Phase kVA Max.	Cyl's	cc's	Fuel	Length	Width	Height	Weight
BetaGen 7	7.2	7.2	3	899	2.1	96	54	67	290
BetaGen 10	9.7	10.1	3	1124	2.7	96	54	67	300
BetaGen 11	10.7	11.2	4	1335	3.0	105	56	67	330
BetaGen 12	12.3	13.0	4	1498	3.5	105	56	67	345
BetaGen 14	14.0	14.5	3	1647	4.3	116	67	82	498
BetaGen 17	16.0	17.3	4	1857	4.8	148	67	82	530
BetaGen 21	19.8	21.1	4	2197	5.6	148	67	82	580
BetaGen 26	25.3	26.2	4	3318	6.2	154	71	89	792
BetaGen 33	32.0	33.5	4	3318	8.4	168	71	89	860
BetaGen 40	38.5	39.6	4	3769	10.7	168	74	89	980
BetaGen 49	44.0	49.5	4	3769	11.6	179	74	89	950

Guascor Generating Solution

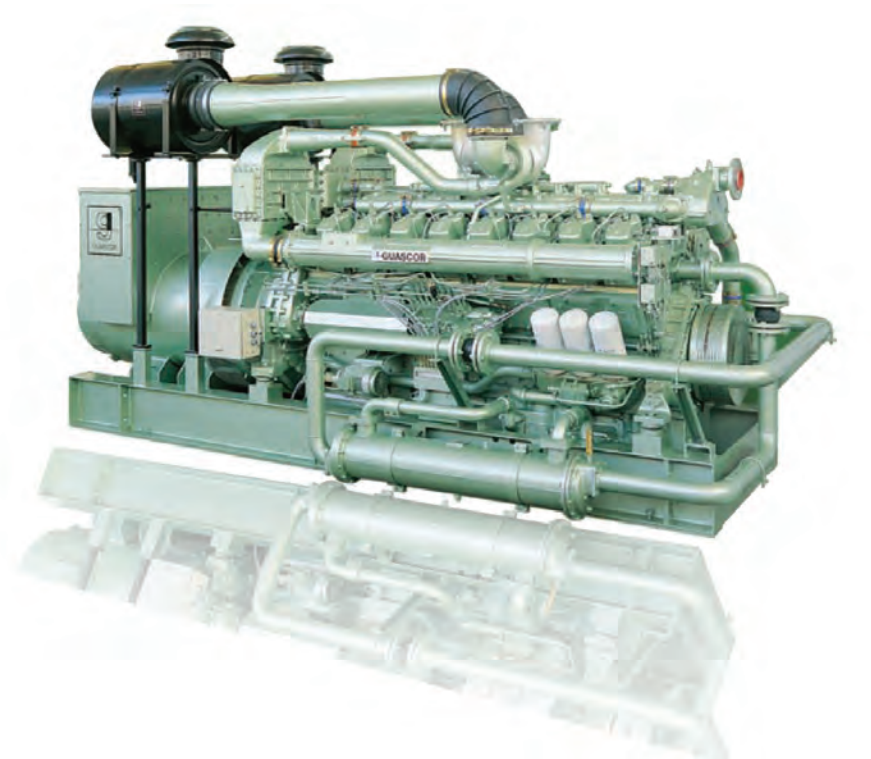
ISO 9001

BUREAU VERITAS Certification

For over 40 years Guascor Power has been gaining experience in the marine area, where the engines are exposed to extremely hard working conditions. As a consequence Guascor Power engines have been designed and manufactured for such a big duty, keeping fuel consumption at low levels.

Engines with this rating as ISO 8528 are available for supplying utility power at a constant 100 percent load for an unlimited number of hours per year. No engine with overload capability is available for this rating.

Guascor Power, additionally to the specified as ISO 8528, allows a 10% overload capability in a time period of 1 hour for each 12 operating hours. The total operating time with a 10% overload must not exceed 25 hours per year.

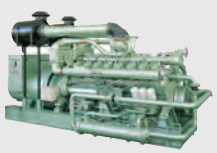


INTERNATIONAL MARITIME ORGANIZATION

Guascor Generating Specification

- Continuous duty 24h/24h
- IP 23 protection
- Self-ventilated
- Insulation class: H
- Heating class: F
- 2 bearings
- Regulation: AREP +/- 1%
- Ambient temperature 45°C
- Sea level: < 1000m
- Relative humidity: 90%
- Marine class options: BV, DNV, GL, RINA, LRS, ABS.

GENERATION

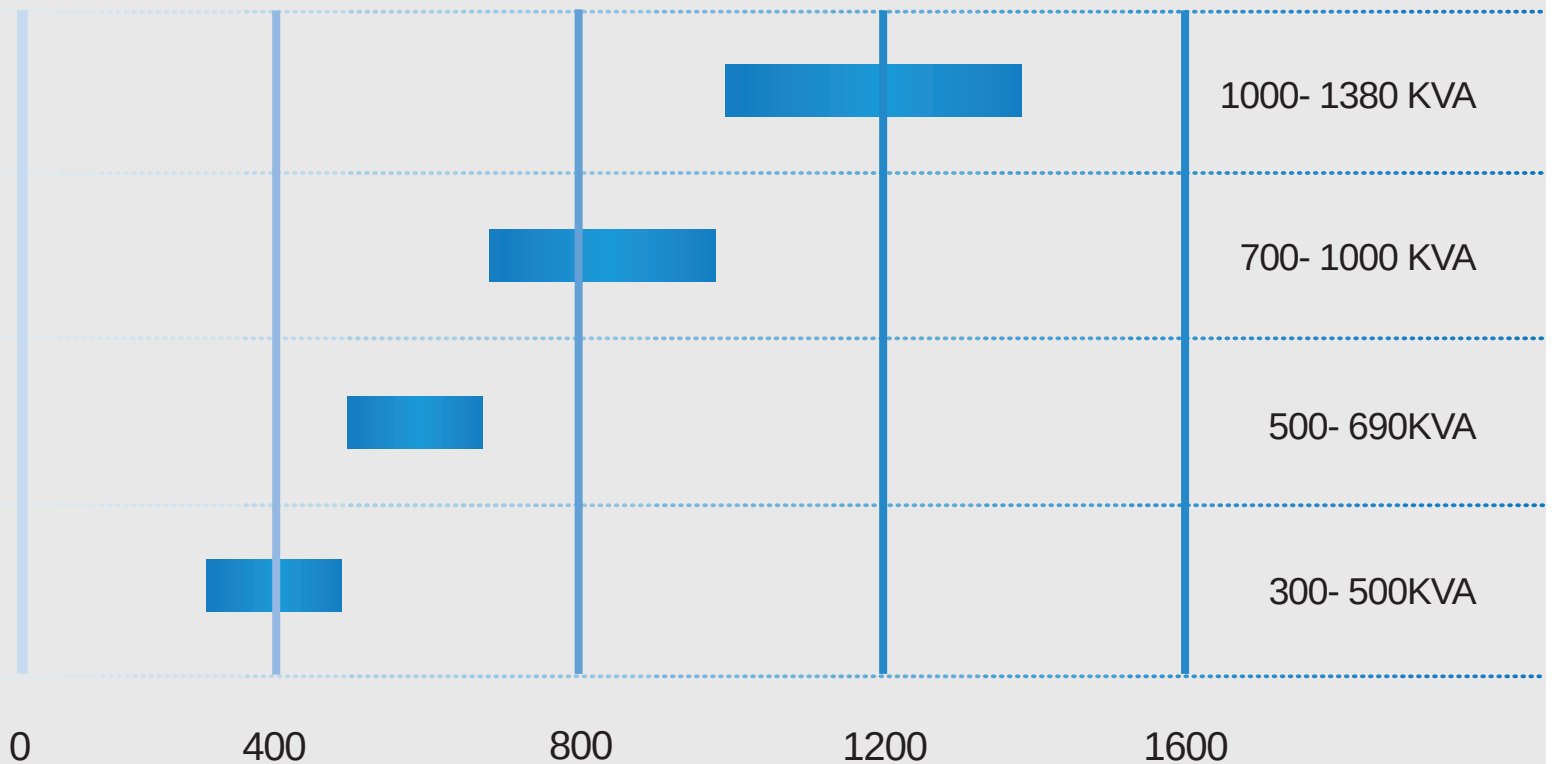


SERIES 480

SERIES 360

SERIES 240

SERIES 180



BETA MARINE

Guascor®

Marine Propulsion

Beta Marine Diesel Engine Solution

Since 1987 Beta Marine has developed an enviable reputation for providing quiet and smooth running marine diesels engine to suit a wide range of applications at very competitive prices.

Beta Marine offers a large range of marine propulsion engines:

- Sea Going – Heat Exchanger Cooled Propulsion engines from **10 to 150 bhp**
- Inland Waterways – Keel Cooled Propulsion engines from 1**0 to 150 bhp**

Beta Marine small engine range is based upon the most technically advanced Kubota diesels that give you very smooth, quiet power, right through the speed range. The Beta Marine engines offer a naturally aspirated reliable heat exchanger cooled and use the indirect injection diesel engine system.

The Kubota based engines have a 5 years ‘self-service’ warranty.

Lloyd's Register

Beta Marine Diesel Engine Specifications

- Heat Exchanger Cooled Propulsion engines from 10 to 150 bhp
- Inland Waterways – Keel Cooled Propulsion engines from 10 to 150 bhp
- Fuel filter and mechanical fuel lift pump.
- Indirect injection, naturally aspirated marine diesel engines based on Kubota.
- Three vortex combustion for quiet running, low emissions and excellent fuel consumption.
- Water cooled exhaust manifold.
- Battery charging alternator 40/65 amps - giving full power at cruising speed with 12 volt electric starting as standard.
- Heavy duty feet and flexible mountings.
- Lubricating oil filter and sump drain pump.

Beta Marine Engine	Power Output	Cyl's	Rpm	cc's	Length (cm)	Width (cm)	Height (cm)	Weight (kg)
Beta 10	10 bhp	2	3000 rpm	479	89.2	49.3	63.5	89
Beta 20	20 bhp	3	3600 rpm	719	60.4	44.2	58.7	104
Beta 35	35 bhp	4	2800 rpm	1498	89.2	49.3	63.5	168
Beta 35	50 bhp	4	2800 rpm	2197	95.9	55.4	67	260
Beta 50	90 bhp	4	2600 rpm	3769	109.2	64.3	75.8	425
Beta 90	150 bhp	4	2600 rpm	3769	108.4	81.8	83.7	425
Beta 150	150 bhp	6	2800 rpm	6700	138.4	75.6	90.8	680

Guascor Marine Diesel Engine Solution

ISO 9001

BUREAU VERITAS Certification

For over 40 years Guascor Power has been gaining experience in the marine area, where the engines are exposed to extremely hard working conditions. As a consequence Guascor Power engines have designed and manufactured for such a big duty, keeping fuel consumption at low levels.

Guascor offer a large range of diesel marine engines:

- F180 series – Diesel direct injection from **250 to 550 HP**
- F240 series – Diesel direct injection from **600 to 670 HP**
- F360 series - Diesel direct injection from **800 to 1000 HP**
- F480 series - Diesel direct injection from **1270 to 1400 HP**

True to their origins, they continue to devote attention to the maritime and fishing sector. Over the years, they have supplied fleets with propulsion and auxiliary equipment to the complete satisfaction of captains and operators, in compliance with the most demanding emission standards **(IMO II)**

IMO TERNATIONAL ARITIME RGANIZATION

Guascor Diesel Engine Specifications

- IMO (International Maritime Organization), IMO Tier 2 standard
- Bureau Veritas, Rina, Lloyds register, Germanischer Lloyd, ABS classification
- Combustion system: Direct Injection
- Cycle: Diesel 4 stroke
- Disposition: In-line 6 cylinders, 8 cylinders and V-12 cylinders
- Turbocharged & aftercooler
- 1500 to 1800 rpm
- 50 & 60 Hz

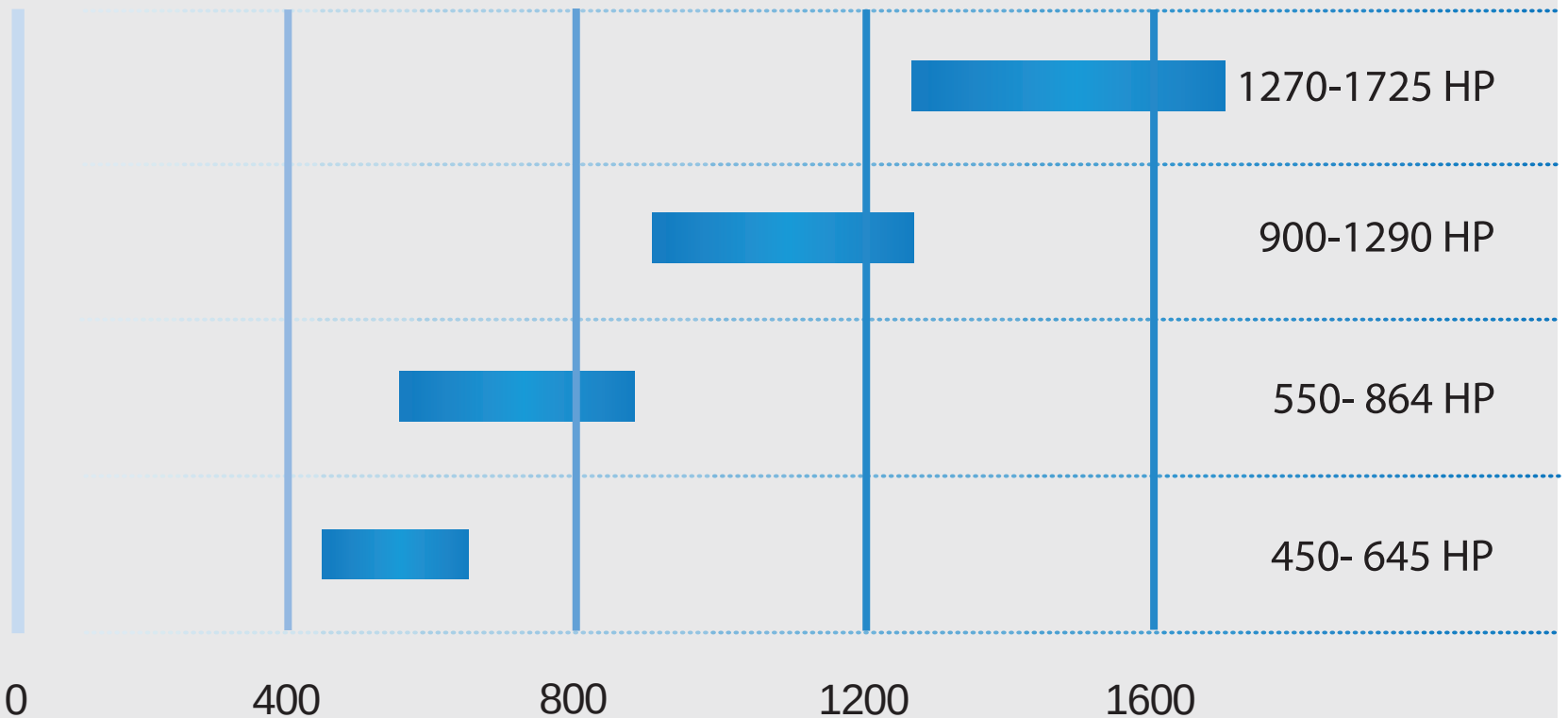
PROPULSION

SERIES 480

SERIES 360

SERIES 240

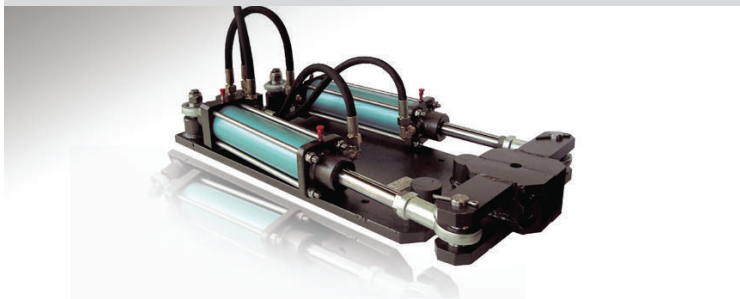
SERIES 180



AK GROUP

LECOMBLE & SCHMITT

Marine Transmission



Power Assisted Hydraulic System

Specifically designed for regular and intensive use, L&S range of power assisted steering systems is designed in total compliance with the strictest norms applying to marine equipment.

The recommended solutions for **185 kpm to 2,000 kpm** rudder torque are suitable to equip **15 to 40 metre vessels**.

Absolute security comes first: steering is still possible even in case of electrical failure. Features such as smoothness, accuracy and reduced number of wheel turns give LS power assisted steering systems unequalled comfort.

Our systems carry a 2 year warranty and our range of cylinders for fishing and work boats is approved by Classification Societies such as **BV, ABS, LRS, GL** and others.

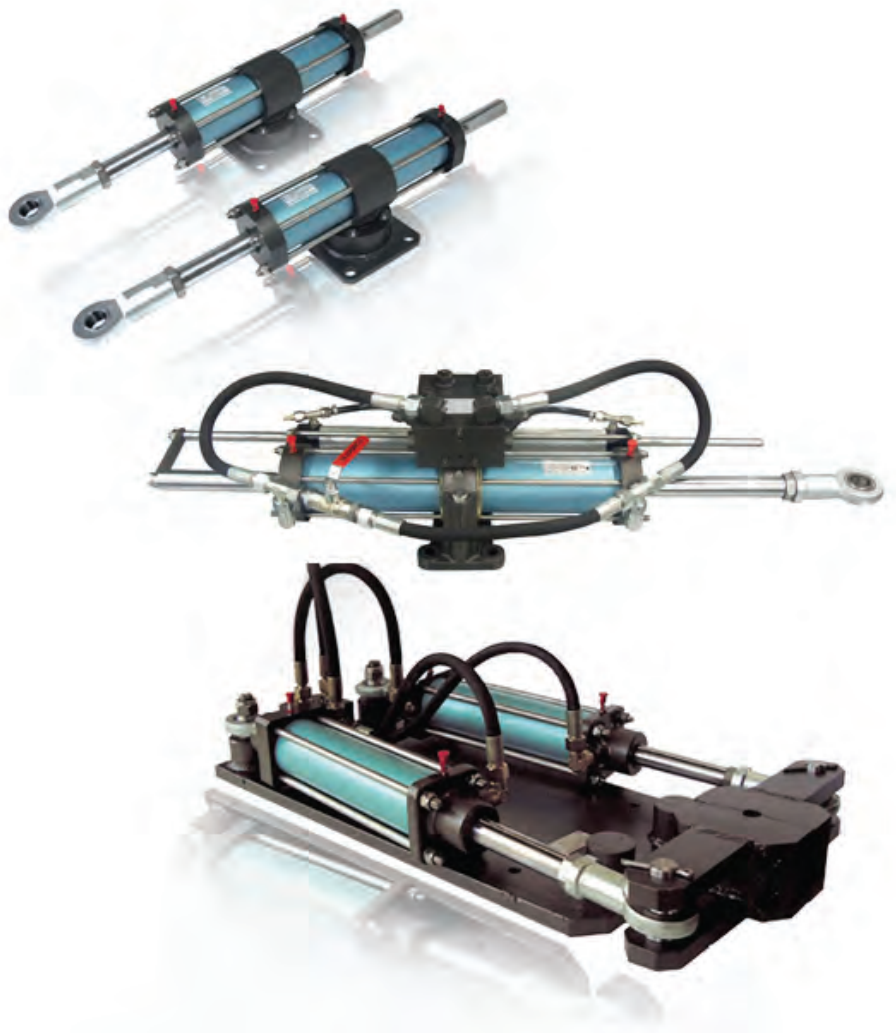
ISO 9001

BUREAU VERITAS
Certification

Hydraulic Jack & Cylinders

ISO 9001

BUREAU VERITAS
Certification



The hydraulic steering systems are perfectly adapted to outboard and inboard motor boats and pleasure, sporting, fishing and commercial applications and to monohull and multihull sailing-boats.

You can easily select the best suited system for your boat within a range of more than 30 cylinders which will provide efficiency, reliability and smoothness.

Our systems carry a 2 year warranty and our range of cylinders for fishing and work boats is approved by Classification Societies such as **BV, ABS, LRS, GL** and others.

Pumps & Tiller arms

ISO 9001

BUREAU VERITAS
Certification

The hydraulic steering systems are perfectly adapted to outboard and inboard motor boats and pleasure, sporting, fishing and commercial applications and to monohull and multihull sailing-boats.

You can easily select the best suited system for your boat within a range of more **than 20 pumps and various tiller arms** which will provide efficiency, reliability and smoothness.

Our systems carry a 2 year warranty and our range of cylinders for fishing and work boats is approved by Classification Societies such as **BV, ABS, LRS, GL** and others.

Johnson Pump®

Marine Pumps

AQUAJET WATER PRESSURE SYSTEMS

Quiet and pulsation-free even at low speeds, the Aqua Jet five chamber diaphragm pump provides the perfect water pressure or deck wash solution for both small and medium sized leisure and commercial boats.

Efficient and compact, Aqua Jet pumps are particularly suitable where low amperage and sound levels in relation to water flow are placed at a premium - such as in shower and galley applications. Operates in fresh or sea water. Self priming.

The five chamber Aqua Jet WPS-series provides a reliable heart for all type of boat's water pressure system. Compared to conventional three or four chamber diaphragm pumps, the Aqua Jet demonstrates a lower noise and water pulsation characteristics. It is recommended to install the WPS-pumps with an accumulator tank.

Aquajet Specifications

- Quick-connect hose or threaded connectors available
- Nylon pump body
- Whisper quiet operation
- Five-chamber construction
- Self-priming
- Connection in 3/8" BSP or 1/2" hose (ø 13 mm)
- Easy, low cost maintenance
- Pressure switch standard
- Long service life
- Meets the international standard, ISO & CE approval

Description	Capacity	Voltage	Pressure Cut off	Motor	Lenght (mm)	Width (mm)	Height (mm)	Weight (Kg)
Aqua Jet WPS 2.4	9l/min – 2.4 GPM	12 / 24 V	2.8 bar – 41 psi	85W	204	197	110	1.6
Aqua Jet WPS 2.9	11l/min – 2.9 GPM	12 / 24 V	2.8 bar – 41 psi	85W	204	197	110	1.6
Aqua Jet WPS 3.5	13l/min – 3.5 GPM	12 / 24 V	2.8 bar – 41 psi	85W	236.5	210	116	2
Aqua Jet WPS 4.0	15l/min – 4.0 GPM	12 / 24 V	2.8 bar – 41 psi	100W	204	214	110	2
Aqua Jet WPS 5.2	20l/min – 5.2 GPM	12 / 24 V	2.8 bar – 41 psi	150W	204	214	110	2
Aqua Jet Uno WPS 3.5	13l/min – 3.5 GPM	12 / 24 V	2.8 bar – 41 psi	85W	315	On request	On request	3.2
Aqua Jet Uno WPS 5.2	20l/min – 5.2 GPM	12 / 24 V	2.8 bar – 41 psi	150W	315	On request	On request	3.2
Aqua Jet Duo WPS 10.4	40l/min – 10.4 GPM	12 / 24 V	2.8 bar – 41 psi	On request	315	On request	On request	3.2

SUBMERSIBLE BILGE PUMPS

SPX's Johnson Pump Marine Brand submersible pumps can handle most of the bilge pump applications. Heavy duty motors with stainless steel (SS2343) shaft and tough thermoplastic bodies provide for a long pump life.

With an automatic switch installed, the pump automatically starts on when there is water in the bilge and shuts off when it is dry.

The best choices when you are looking for high performance, heavy duty pumps designed to meet the tough demands of commercial and recreational duty. Both pumps may be automatically controlled with either an automatic switch AS888 or an electronic float switch or the new Ultima Switch.

Cartridge bilge pumps L450- L750 series Specifications

These pumps series consist of four different sizes. The basic version can be combined with either an automatic switch AS888, an electronic float switch or the new ULTIMA switch for automatic operation.

The Cartridge Duo pumps are equipped with a non-clogging electronic float switch as standard.

For L450, L550, and L650 and dito Ultima Combo versions, we have improved the design with easy-to-install Dura-Port discharge ports to eliminate stress cracking caused by over-tightened hose clamps.

The pumps will be delivered including both a straight and a 90° smooth elbow Dura-Port as well as a removable check valve.

Both the Cartridge and the Ultima Combo pumps may be manually operated via the bilge control panel.

- Compact, all-in-one motor/impeller unit
- No tools needed for maintenance
- Extremely energy efficient
- Water-cooled motor for long service intervals
- Meets the international standard, ISO 8849 marine & CE approval

Description	Capacity 3ft (0.9m) head (13.6 V)	Capacity straight (13.6 V)	Amperage	Max Ø(mm)	Voltage	Height(mm)	Weight (Kg)
L450 - 600 GPH	33 l/min - 525 GPH	40 l/min - 630 GPH	2.5 A	70	12 V	112	0.27
L550 - 800 GPH	44 l/min - 700 GPH	50 l/min - 800 GPH	3 A	70	12 V	112	0.27
L650 - 1000 GPH	50 l/min - 800 GPH	63 l/min - 1000 GPH	3.2 – 2 A	70	12 / 24 V	112	0.27
L750 - 1150 GPH	60 l/min - 952 GPH	73 l/min - 1150 GPH	3 – 2 A	70	12 / 24V	112	0.32

Heavy duty bilge pump L1600 – L4000 series Specifications

Designed to meet and exceed the tough demands of commercial and recreational duty.

This pump has a liquid cooled, 12-pole motor with Heavy duty, 12-pole double ball bearing motor with double ball bearings for extended service life.

The L2200 motor is sealed off by a mechanical seal design, while the L1600 model has lipseal.

The impeller is carefully designed and tested to maximize head and flow.

The L4000 features a robust motor design, mechanical shaft seal, high impact ABS plastic and unique threaded port design.

- Liquid cooled for extended motor life
- Quality engineered mechanical/lip seal
- ISO 8849 Marine and CE standards
- Easily interchangeable with most similar bilge pumps

Description	Capacity 3ft (0.9m) head (13.6 V/27V)	Capacity straight (13.6 V/27V)	Amperage	Max Ø(mm)	Voltage	Height(mm)	Weight (Kg)
L1600	98 l/min – 1550 GPH	100 l/min – 1600 GPH	7 – 3.5 A	108	12 / 24V	149	1.3
L2200	120 l/min – 1900 GPH	130 l/min – 2060 GPH	7.5 – 4.5 A	108	12 / 24 V	177	2.7
L4000	164 l/min – 2600 GPH	252 l/min – 4000 GPH	15 – 7.5 A	121	12 / 24V	216	2.45

FLEXIBLE IMPELLER PUMPS

With their high level of flexibility, these pumps are ideally suited for use in boats as bilge and deckwash pumps, fresh water pumps, refuelling pumps for oil and diesel.

Fully equipped, self-priming multipurpose pumps operating on a simple and uncomplicated principle, These pumps may be combined with a vacuum switch for automatic operation.

Capacities vary from **max 14 l/min to 55 l/min**, allowing the proper matching of the pump to the application. All motors are heavy duty to provide long service life even under heavy use. Available in **12 or 24 volts**.

Flexible impeller pumps specifications

With their high level of flexibility, the DC driven pumps from SPX Johnson Pump can be used for a variety of different applications and are ideal as deck wash pumps. Not to be used for pumping paraffin or other thin petroleum products.
They can be combined with a vacuum switch when used as bilge pumps and with a pressure switch for deck wash applications. for deck wash applications.

- Oil-resistant impeller
- Self-priming
- Easy maintenance
- Handle debris (bilge pumping)
- ISO and CE standards

Description	Impeller	Voltage	Connection	Capacity	Lenght (mm)	Width (mm)	Height (mm)	Weight (Kg)
F2P10-19	09-1077B-9	12 / 24V	½" hose	15 l/min	172	117	78	1.6
F2P10-19	09-843S-9	12 / 24V	3/8" BSP	21 l/min	170	113	82	2
F3B-19 Oil change	09-843S-9	12 / 24V	3/8” BSP	21 l/min	170	113	115	2.1
F38B-19	09-824P-9	12 / 24V	Hose 1" / ½" BSP	35 l/min	180	180	90	3
F4B-19	09-824P-9	12 / 24V	Hose 1" / ½" BSP	48 l/min	202	120	90	3
F4B-11 Ultra Ballast	09-824P-1	12 / 24V	Hose 1" / ½" BSP	52 l/min	202	120	90	3
F5B-19	09-1027B-9	12 / 24V	¾" BSP	55 l/min	258	131	120	8

HEAVY & EXTRA HEAVY DUTY IMPELLER PUMPS

A range of multipurpose heavy duty bronze pumps. Compact design, raw water resistant pumps at an attractive price. With excellent self-priming capability, these pumps are ideal as cooling water pumps for marine engines, bilge pumps, deckwash pumps, fresh. water pumps, fuel transfer pumps and other applications. Also ideally suited on shore to empty septic tanks, to flush clean and to fill water tanks.

Whenever you need greater strength or service from a pump, use an extra heavy duty flexible impeller pump with separate bearing housing and mechanical seal for less wear and longer life. These pumps cover the entire range of marine applications and may be used as cooling water pumps, bilge pumps, deckwash pumps, emergency and fire fighting pumps, etc

Heavy & extra heavy duty impeller pumps

Pump body:	Bronze. Connection for vacuum switch
Impeller:	Neoprene, Nitrile (oil resistant)
Shaft:	Stainless steel
Shaft seal:	F35–F7B : Lip or Mechanical seal
	F8B : Mechanical seal (extra heavy duty)
Cam:	Full or reduced
Pedestal:	Cast iron with permanently lubricated double ball bearings
Connection:	3/8" – 1 1/2" BSP or NTPF on request) (heavy duty)
	3/4" – 2 1/2" BSP or NTPF on request
	Flange. Port adaptor kits for BSP or NTPF on request (Extra heavy duty)

Extra heavy duty electro-magnetic clutch pumps

Pump body:	Bronze. Connection for vacuum switch
Impeller:	Neoprene
Shaft:	Stainless steel
Shaft seal:	Mechanical seal
Cam:	Full or reduced
Pedestal:	Cast iron with permanently lubricated double ball bearings
	Electromagnetic 12V or 24V DC
	2 x A or 1x B groove
	Pulley Ø 178 mm
Connection:	Flange, Port adapter kit available.
	1" – 2 1/2" BSP or NTPF on request

AquaT Marine Toilets

Available in a wide variety of different versions marketed under four basic models — standard, silent and premium electric-powered or manual. Most models can be ordered with standard, bevelled or low profile in order to fit almost any hull and bulkhead configuration, and all are available in either compact or comfort versions so you can outfit your marine lavatory with the perfect-sized toilet, no matter what the layout.

The standard electric model is equipped with a combined pump unit for disposal and flushing. It is easy to install and an economical choice of electrical toilet. The silent and premium electric models are shipped with well-proven Aqua Jet diaphragm pumps in either 12V or 24V versions, and the manual version incorporates an ergonomically designed, hand-powered piston pump that can be mounted for either left-hand or right-hand use.

CRISTEC
l'énergie embarquée

Schneider Electric

Marine Electrical System

The strength of innovation

ISO 9001

BUREAU VERITAS
Certification

CPS3 battery chargers: the answer to constantly changing requirements in a climate of increasingly stricter standards.

Special coating: peace of mind

The charger electronic boards are coated with waterproof and tropicalised varnish.
An anti-drop covering protects the charger from water ingress.
The entire charger casing paint is specifically coated to prevent corrosion.

Managing technology: high performance

The latest HF technology and COS PHI$_1$ regulation (integrated PFC – Power Factor Correction) ensure nominal charger operation in the event of wide input fluctuation. As AC charger input consumption is low you economise generator power.

In-built protection: reliability

The CPS3 battery chargers have numerous in-built protection devices (polarity reversal, short-circuits through removable fuses, over-heating, etc.,) ensuring a long charger life.

Parallel-mount: flexibility

You can parallel-mount our chargers thereby multiplying the output current (2 off 12V/60A chargers will deliver 12V-120A). You can parallel-mount up to 6 chargers preferably the same size. The power-sharing function is active if only one single output is used per charger (on models 12V/80A, 12V/100A, 24V/60A, 24V/120A, 48V/30A and 48V/60A).

CPS3 automatic charger/isolator

CPS3 chargers are equipped with special terminals for the addition of a splitter option for up to 6 independent battery connections.

- **Enhanced protection:** splashproof hood and marine grade electronic plate.
- **Easy installation:** CPS3 Chargers are designed to be installed vertically or horizontally with their external lugs.
The unit features a compartment specifically dedicated to connections and settings, which is accessible thanks to the removable front cover. It guarantees a fast connection to the charger, batteries and a direct access to the different settings available.
- **Display:** 3 indicators visible on the front give a real time indication of charge status.

Voltage	Model	Current	No of outputs	Weight	Dimension
12 V	CPS70 - 1A	6A	2	1.6 kg	160 x 215 x 80 mm
	CPS120 - 1A	10A	2	1.6 kg	160 x 215 x 80 mm
	CPS3/12 - 16	16A	3 + (start. BATT, BATT 1 & BATT 2) + SP terminal	2.5 kg	179 x 258 x 106 mm
	CPS3/12 - 25	25A		2.5 kg	179 x 258 x 106 mm
	CPS3/12 - 40	40A		4.2 kg	212 x 282 x 117 mm
	CPS3/12 - 60	60A		4.2 kg	212 x 282 x 117 mm
	CPS3/12 - 80	80A		7.5 kg	260 x 350 x 123 mm
	CPS3/12 - 100	100A	1 + SP terminal		400 x 350 x 123 mm
24 V	CPS3/24 - 12	12A	3 (start. BATT, BATT 1 & BATT 2) + SP terminal	2.5 kg	179 x 258 x 106 mm
	CPS3/24 - 20	20A		4.2 kg	212 x 282 x 117 mm
	CPS3/24 - 30	30A		4.2 kg	212 x 282 x 117 mm
	CPS3/24 - 75	60A		7.5 kg	260 x 350 x 123 mm
	CPS3/24 - 60	75A		7.5 kg	260 x 350 x 123 mm
	CPS3/24 - 120	120A	1 + SP terminal	14 kg	400 x 350 x 123 mm
	CPS3/24 - 150 - TRI	150A -TRI	1 + SP terminal	14 kg	400 x 350 x 123 mm

Digital battery monitor

- Automatic monitoring of the generator and output of energy sources (wind vane, solar panels...).
- Operates on the principle of navigation with buttons and display, with a backlit graphic LCD screen.
- Comes with a 250A/100mV shunt and a 10m RJ11 cable.
- Allows the overall monitoring of 1 bank/energy source and 2 banks under power.

Electronic battery isolators RCE

- Electronic battery isolators with MOSFET technology (MOS transistors).
- Provides optimum battery charge, with no voltage drop and without raising the battery temperature.
- Isolates battery banks and direct automatically the current load to the lowest charge battery.
- Operate on 12 or 24V from any source of energy

Circuit breaker – Compact NSX

Today, next-generation Compact NSX circuit breakers provide an intelligent outlook and set the standards of tomorrow. A power monitoring unit enhances their invariably impeccable protective functions. Compact NSX circuit breakers users can monitor both energy and power,offering new performance in a remarkably compact device.

- Up to 315kW at 400V (protection for motors),
- 150kA – demanding applications (marine).
- Integrated monitoring
- Very high breaking capacity in a very small device
- Simple in design, simple to install and use

Energy measurement and control

Increased energy availability

Safety and protection

Altivar

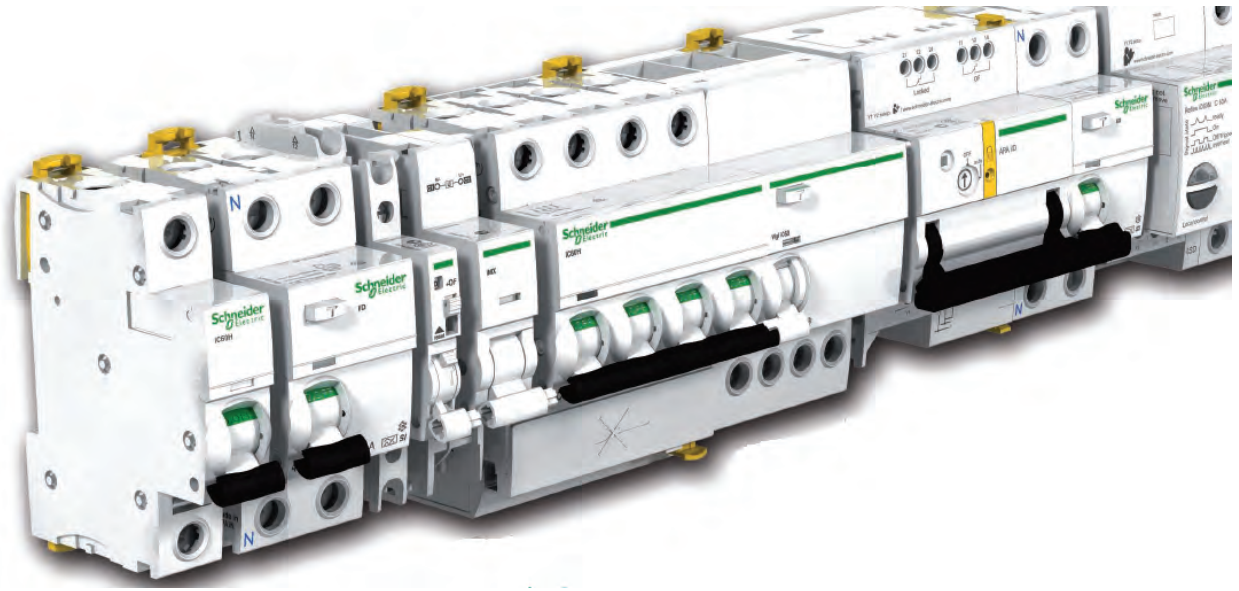
Start your motors smoothly and protect your installation's mechanics using Altistart soft starters and Altivar variable speed drives.

- 0.37 to 630 kW
- High performance drives
- IP20 for unprotected drives and IP41 on the upper part
- 0.1 to 1600 Hz up to 37 kW, 0.1 to 500 Hz from 45 to 75/500/630 kW
- Single or three phases

Acti_9

The fifth generation of the most flexible and innovative low-voltage modular system with lighting, time and energy management

- DIN rail fitting : No additional space needed
- 11 input / output channels
- All in one cable with pluggable connections IEC 61 131 Compliant
- Adjustable and modular system
- Centralizes control and collects energy meter data



HELLA®

Hella marine

Vision and Innovation

PESCH SEEMATZ MARINESCHEINWERFER

Marine Lights

Navigation lights
NaviLED 360

IMO
COLREG 72

With less than 1.5W of consumption, NaviLED®360 lamps draw a fraction of the energy required to run a conventional 2 nautical mile incandescent lamp.

No bulbs. No maintenance. Ultra long service life

Hella marine LED technology has no filaments to break making NaviLED® lamps extremely shock and vibration proof for reliability and safety in demanding conditions.

MultivoltTM 9-33V DC. IP 67 Certified

Each NaviLED® lamp is a completely sealed unit, highly UV and corrosion resistant. High impact housings ensure durability against waves and other impact. NaviLED®360 anchor lamps have undergone extensive 'tested to destruction' programs to help lift product reliability to a new standard. Each lamp is a completely sealed and waterproof unit,

Pre-wired with marine cable

Quality twin core marine cable assemblies are used on all lamps ensuring time saving, completely sealed installations.

Internationally certified

Meets the requirements of COLREG, USCG, ABYC A-16, RINA, NMSC, Maritime NZ.

LED | IP 67 COMPLETELY SEALED | 9-33V MULTIVOLT TM | CE | UV RESISTANT | 5YR WARRANTY

Navigation lights NaviLED PRO

B-7061
MED Certified

Ultra low current drawNaviLED®PRO lamps use less than 10% of the power required to run a bulb navigation lamp. Port, Starboard and Stern lamps consume less than 3.2 Watts combined.

No bulbs. No maintenance. Ultra long service life

Hella marine LED technology has no filaments to break making NaviLED®PRO lamps extremely shock and vibration proof for proven reliability and safety in demanding conditions.

MultivoltTM 9-33V DC. IP 67 certified

Each NaviLED®PRO lamp is a completely sealed unit. High impact housings ensure durability from waves and other impact. Ultra heavy duty BSH versions use high-tech Grilamid® lens to offer superior strength in extreme conditions.

Pre-wired with 2.5m of twin core marine cable

High quality cable assemblies for time saving, completely sealed installations.Internationally certified Meets the requirements of COLREG, USCG, ABYC A-16, RINA, BSH, Wheelmark, NMSC, Maritime NZ.

LED | IP 67 COMPLETELY SEALED | 9-33V MULTIVOLT TM | CE | UV RESISTANT | 5YR WARRANTY

NaviLED PRO and NaviLED 360 Specifications

- Completely sealed - IP 67
- Ultra low power consumption
- UV, corrosion and impact resistant
- Pre-wired with marine cable
- MultivoltTM
- Internationally approved
- 5 Year warranty
- Reverse polarity and spike protected

Lamp Type	NaviLED PRO, NaviLED 360 and NaviLED Compact Series
Material Description	Hi impact resistant acrylic lens or Ultra heavy duty Grilamid® lens (BSH NaviLED PRO only)
Minimum Visible Distance	2, 3 and 5 Nautical Mile options
Cable	Pre-wired with twin core marine cable
Operating Voltage	MultivoltTM 9-33V DC or 8-28V DC
Voltage Protection	Spike protected to +500 volts Reverse polarity protected to -700 volts
Power Consumption	<2W (<0.17A@12V / <0.08A@24V NaviLED PRO 3NM Masthead <2.5W (<0.25A@12V / <0.13A@24V) NaviLED PRO 5NM Masthead <4.0W (<0.33A@12V / <0.17A@24V)
Degree of Protection	IP 67 - Completely Sealed
Weight (including cable)	NaviLED PRO & 360 Surface Mount 150g / NaviLED Comapact 60g
Approvals	IMO COLREG, USCG, RINA (I), ABYC A-16, NMSC, BSH, WHEELMARK

Courtesy lights Rakino

Designed and manufactured in New Zealand and consuming less than 0.8W per lamp (<0.07A@12V / <0.03A@24V), Hella marine Rakino and Tiri series LED downlights feature industry leading efficiency.

Advanced Hella marine lens and optic designs provide intense light without glare or eye strain. Two beam angle options are available, a 15° Spot or 32° Spread beam.

The Spot lamp (Peak light angle at 15°) is ideal for installations where the first surface requiring illumination is 1 meter or more from the lamp.

Spread lamps (Peak light angle at 32°) are ideal for softer light where the first surface to be illuminated is less than 1 meter from the lamp.

Each lamp is completely sealed and can be installed almost anywhere on board, interior or exterior, wet or dry. The ultra low heat signature will not cause damage to surrounding materials.

Available in 12V or 24V DC versions, these LED lamps can be dimmed and controlled with the Hella marine 2 Group Light Dimmer for ambient lighting effects.

Hella marine LED downlights represent the class leading energy efficiency and maintenance free ‘fit and forget’ technology.

Heavy Duty lights DuraLED

DuraLed® lamps provide powerful white light and a safe, energy efficient and reliable alternative to incandescent and fluorescent lighting.

Purposely designed for engine rooms, storage lockers, lazarettes and many heavy duty applications where reliability must not be compromised. Advanced Hella marine lens and optic engineering ensures an ultra wide spread of light without glare or harsh point sources.

The range offers three peak intensity levels, all with a very wide spread of light. Each lamp is completely sealed, pre-wired with 2.5m of twin core marine cable, impact resistant and shock resistant ensuring an ultra long service life.

Hella marine MultivoltTM circuitry provides constant illumination and circuit protection from 9-33V DC, even under severe voltage fluctuations.

DuraLed® lamps carry ISO Ignition Protection approvals for safe and certified installations when lamps are located near flammable gas sources such as machinery spaces, tender garages and fuel storage areas.

DuraLed® lamps are surface mounted and feature a unique installation system where the fastening load is taken up by a heavy duty nylon bush to eliminate possible stress on the lamp housing.

LED

IP 67 COMPLETELY SEALED

9-33V MULTIVOLT TM

CE

UV RESISTANT

5YR WARRANTY

DuraLED Specifications

- 4 different sizes (12, 20, 36 and 50 LED)
- Completely sealed housing and cable entry
- Pre-wired with marine cable
- Multivolt 9-33 V DC
- IP 67, CE, ISO
- 5 years warranty
- UV, impact & shock resistant
- Heavy duty

Lamp Type	DuraLED 12	DuraLED 20, 36 and 50 LED
Lens material	UV resistant enhanced impact acrylic	
Colour Temperature	5000K (White)	
Cable	Pre-wired 2500mm marine cable	
Operating Voltage	12 / 24V DC	9-33V DC
Power Consumption	<2.5W (<0.20A@12V / <0.10A@24V)	20 LED <4W (<0.33A@12V / < 0.17A@24V) 36 LED < 7W (<0.51A@12V / < 0.28A@24V) 50 LED <10W (< 0.80A@12V / < 0.39A@24)
Operating Temperature	-40°C to +60°C / -40°F to 140°F	
Degree of Protection	IP 67 - Completely sealed	
Weight	115g (including cable)	20 and 36 LED 345g (including cable) 50 LED 450g (including cable)
Installation	Surface mount with robust bush mount	
Approvals	CE, ISO 8846 (Ignition Protection)	

Floodlight (Up to 15meters)

Completely sealed and weighing a mere 250 grams (including cable), Sea Hawk LED lamps are a brand new class of energy saving, compact, lightweight, and ultra durable luminaires that can be installed almost anywhere onboard, interior or exterior.

Power consumption is low at less than 3W, (<0.25A@12V / <0.13A@24V) yet Sea Hawk lamps offer 240 lumens of crisp white light. Sea Hawk lamps utilise a high performance Grilamid® Polyamide lens for superior strength and resistance to impact and UV.

The housing is a tough, proven, high impact plastic offering outstanding UV resistance. Integrated MultivoltTM electronics provide protection from reverse polarity, voltage spikes and low battery voltages and ensure reliable operation at full brightness across a range of input voltages from 9-33V DC.

Spread lamps are suited for illuminating cockpits and transom areas with a close range, wide spread of light. Spot lamps offer a narrower and more concentrated light pattern for applications such as spreader lighting on yacht masts.

Effective retention in the innovative fastening design will hold the lamp steady at varying angles without the need to adjust fastenings. Hella marine Sea Hawk series lamps represent the latest in energy efficiencyand maintenance free ‘fitand forget’ technology.

LED

IP 67
COMPLETELY SEALED

9-33V
MULTIVOLT TM

CE

UV
RESISTANT

5YR
WARRANTY

LED Sea Hawk Specifications

- lightweight & durable
- Completely sealed housing
- Pre-wired with three core marine cable
- Multivolt 9-33 V DC
- IP 67, CE, ISO
- 5 years warranty
- grilamid Polyyamide lens
- Unique two-step high/low function

Lamp Type	**Sea Hawk** (Bracket)	**Sea Hawk XL**
Material Description	UV and impact resistant plastic Heavy duty Grilamid® lens	
Bracket	Polished 316 stainless steel	
Colour Temperature	5500K (White) 1600K (Red)	
Cable	Pre-wired with twin core marine cable	
Operating Voltage	MultivoltTM 9-33V DC	
Degree of Protection	IP 67 - Completely Sealed	
Power Consumption	Sea Hawk <3W (<0.25A@12V / <0.13A@24V)	High Intensity Mode 12W (1.00A@12V / 0.50A@24V) Low Intensity Mode 2W (0.17A@12V / 0.08A@24V)
Number of LEDs	12	30
Dimensions	136mm (w) x 53mm (h) x 49mm (d)	170mm (w) x 68mm (h) x 58mm (d)
Weight (including cable)	250g	390g
Light Output	White Lamps - 240 lumens Red Lamps - 50 lumen	750 lumens
Approvals	CE	

Floodlight AS 5000 LED

Hella marine AS 5000 LED floodlights are precision engineered to perform without failure season after season in the world's harshest marine environments and provides highly effective illumination for working vessels.

Powerful and efficient

With over 5000 lumens AS 5000 LED lamps offer highly effective illumination with a power consumption of only 5A@12V and 2.5A@24V DC.

Fully sealed and salt water durable

Each lamp is completely sealed IP 6K 9K unit, impervious to moisture and contaminants.

MultivoltTM 9-33V DC

Durable under extreme temperature conditions

AS 5000 series LED lamps are designed and tested to operate effectively from –40° to +50° celsius. Integrated thermal protection ensures longevity of the electrical components at the most extreme operating temperatures.

'Fit and forget' for a long service life

Relentless Hella marine 'test to destruction' development programs help lift product reliability to new levels. AS 5000 LED lamps endure the worst of vibration, shock and high impact torture tests.
Hella marine AS 5000 LED lamps carry a **5 year warranty.**

AS 5000 LED Specifications

- Powerful & Efficient 5000 lumens
- Pre-wired heavy duty marine cable
- Multivolt 9-33 V DC
- IP 67, CE, ISO
- 5 years warranty
- Long term secure installation
- Durable under extreme environment

Lamp Type	AS 5000 LED
Housing Material	Die cast aluminium body. Non-stick surface coating
Lens Material	Heavy duty Grilamid®
Bracket Material	316 stainless steel
Colour Temperature	5700K (Daylight White)
Cable	Pre-wired with twin core marine cable. 2 pin DT.
Operating Voltage	MultivoltTM 9-33V DC
Power Consumption	60W (5A@12V / 2.5A@24V)
Operating Temperature	-40°C to + 50°C
Degree of Protection	IP 6K 9K - Completely Sealed
Dimensions	204mm (w) x 168mm (h) x 160mm (d)
Weight (including cable)	2600g (including cable)
Light Output	5000 lumens
EMC Protection	CISPR25 Class 2, ISO13766:2006
Shock Rating	200G
Vibration Rating	750Hz at 3.2mm

Searchlights

Manufactured in Germany, Seematz have been developing and producing searchlights for the worldwide market, everywhere where functionality is obligatorily necessary under all conditions, for over 40 years.

Their scope of supply includes searchlights from 150 to 7000 Watt with manual or automatic use via electrical remote controls and control panels.

The following lamps can be used:

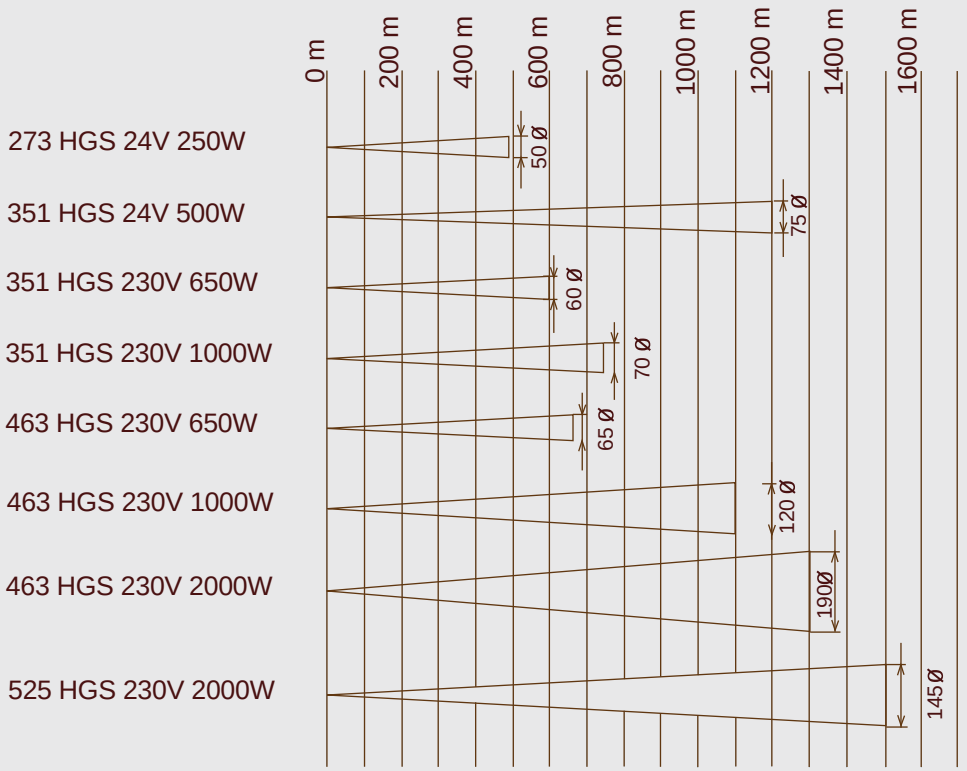
- Halogen (HGS) – the classic illuminant with an excellent cost/benefit factor. Available from 150 to 5000 Watt.

- XENON (XBO®) – High performance illuminant with extremely far range. Light colour like daylight, good reflection through ice. Maximum luminous intensity immediately after power up, no cooling off period between power up and off necessary. Available from 450 to 7000 Watt.

Searchlight specifications

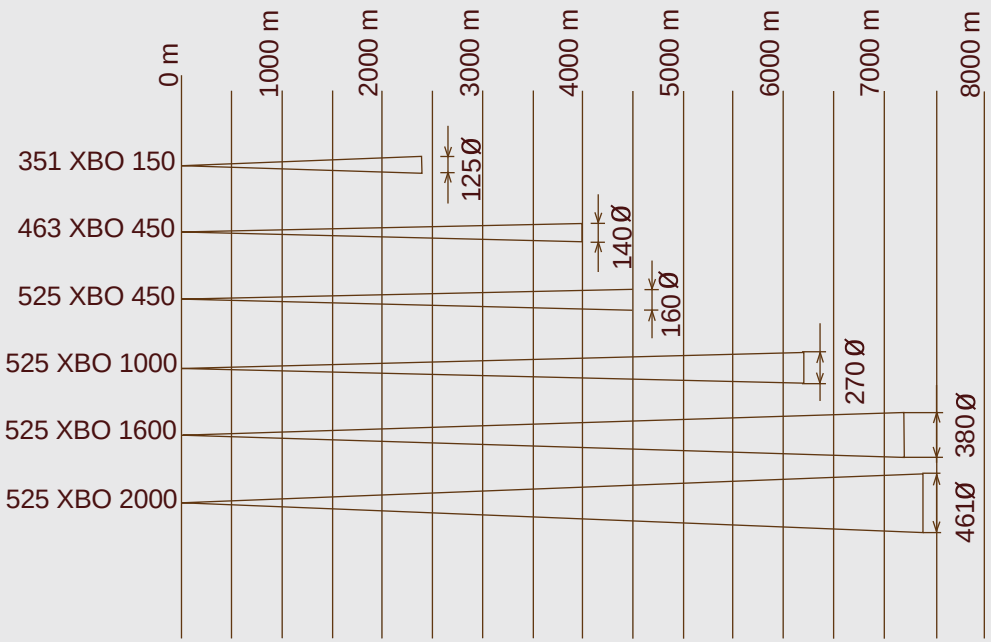
- Range from 150 to 7000 Watt
- Reach from 0 to 1600 meters
- Halogen, Mercury or Xenon lamps
- Manual or Automatic use
- Combinable with electric motor remote controls for 24VDC or 230/380VAC
- All fittings made of stainless steel
- Front window made of SECURIT® glass – high-strength
- Customable colors (RAL colors)
- High performance reflector made of 99.9% anodic polished aluminium

SEEMATZ Searchlight HGS 250W-2000W



measurements are conform DIN regulation

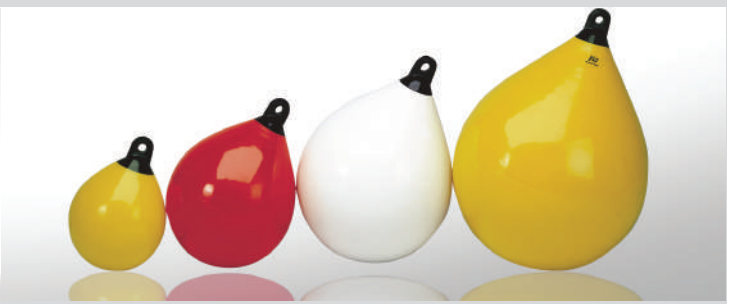
SEEMATZ Searchlight XBO 150W-2000W



measurements are conform DIN regulation

PLASTIMO

Marine Safety



Plastimo's commitment to safety has been at the core of our business for over 40 years

Today, Plastimo is offering a full range of 40 models of lifejackets and buoyancy aids in a variety of vibrant colours and comfortable shapes. This comprehensive range serves all water-sports and incorporates individual preferences such as traditional foam or inflatables.

ISO 9001

BUREAU VERITAS
Certification

3 year Warranty

Every lifejacket goes through a complete check-up procedure at every stage of production. For example, every air chamber is tested fully inflated for 12 hours to check seam tightness. Our 3-year warranty on inflatable lifejackets reflects our confidence in our quality procedures.

Manual or automatic inflation? Some hints to help you choose.

Inflation can be triggered in 3 ways:

- **Oral inflation:** possible on all lifejacket models. The oral inflation tube allows you to pump up.
- **Manual inflation:** firing the CO2 gas cylinder is done by pulling an activating handle. Specially recommended for sailors who may be occasionally immersed when manoeuvring (for example when sitting out on rather acrobatic manoeuvres).
- **Automatic inflation:** the lifejacket inflates automatically on immersion in the water. Recommended for cruising, an absolute must for non-swimmers and for single-handed sailors, as the lifejacket inflates even if the wearer is unconscious.

Materials/buoyancy tube: the double chamber is a Plastimo exclusive (air chamber within an envelope) used on all our liferaft models. Plastimo has selected a 1100 Decitex PVC for the outer envelope because it offers extreme resistance to abrasion. The inner chamber is constructed from an outstanding polyurethane sheet which guarantees an absolute water and airtightness, and offers an astonishing stretching capacity of 500%.

	Buoyancy aid 50 Newton	Lifejacket 100 Newton	Lifejacket 150 Newton	Lifejacket 275 Newton
Use	Coastal sailing, beach/shore activities.	Inshore, coastal sailing.	Open sea/blue water sailing.	Open sea/blue water sailing. Extreme conditions and professional use.
Type of vessel	Canoe-kayak, windsurf, dinghy, water ski, jet ski.	Sail and power crafts.	Sail and power crafts.	Sail and power crafts Professional vessels*.
Performance	**Not self-righting.** Keeps the airway out of the water, wearer being conscious.	**Self-righting : turns wearer safely on his back within 10 seconds.**	**Self-righting : turns wearer safely on his back within 10 seconds.**	**Self-righting : turns wearer safely on his back within 5 seconds,** user wearing heavy protective clothing.
		Supports the head all around : on both sides of the head and at the back.		
Colour	One or several.	Bright colour imposed.	Bright colour imposed.	Bright colour imposed.
Reflecting material	Not required	100 cm2	300 cm2	300 cm2
Whistle	Not required	Required	Required	Required
Grab handle	Not required	Required	Required	Required
Crutch strap	Not required	Recommended	Recommended	Recommended

Pilot 275 N lifejacket

	PILOT 275 N
Recommended use	Intensive use and extreme weather conditions (skipper, regular cruising or racing). Comfortable and hard-wearing lifejacket.
Performance	Self-righting capacity : turns most wearers face up within 5 seconds, even unconcious and equipped with heavy clothes or professional gear.
Inflation / firing mechanism	• CO_2 gas cylinder, 60 g. • Tube for oral inflation, with non-return valve. • Inflation mode: manual, automatic Pro-Sensor or hydrostatic Hammar. • Status monitoring on Pro-Sensor and Hammar models: red/green indicator shows clearly the firing mechanism status.
Air chamber	Totally independent air chamber, protected by the outer cover.
Visibility when inflated	Yellow chamber. 400 cm^2 retro-reflecting tapes.
Outer cover	Rounded comfortable neck. Reflective piping on shoulders. Viewing window on Pro-Sensor and Hammar models, to monitor the status of the firing mechanism.
Back strap	Improved comfort and better body fit. 25 mm wide polypropylene webbing.
Waist strap	• With an EN ISO 12401 harness: 46 mm wide adjustable polyester webbing. • Without a harness: 40 mm wide polypropylene webbing. Designed for 60-170 cm waistline
Buckles	• With an EN ISO 12401 harness: 316L stainless steel buckles, non-magnetic. • Without a harness: buckles in composite material.
Grab loop	Facilitates grabbing the casualty and hoisting him/her out of the water. 25 mm wide polypropylene webbing.
Whistle	Secured with lanyard inside the lifejacket.
Weight	As from 970 grammes (manual, without harness model).

Viewing window to monitor the status of the firing head : Pro-Sensor and Hammar inflation systems indicate visually the status of the firing head (green = lifejacket is operational).
If the gas bottle is pierced or not properly tightened, the indicator turns red automatically.

On Hammar hydrostatic model : a mesh patch built into the outer cover accelerates the water entry to trigger the firing head quicker and ensure a prompt deployment of the inflated jacket.

Foam lifejackets

150 N category standard features :

- Self-righting capacity, user wearing foul weather gear.
  Head supported above the water.
- Buoyancy provided by polyethylene foam.
- Outershell 100% polyester, fluo orange for optimum visibility. optimum visibility.
- Grab handle.
- 300 cm^2 retro-reflecting stripes for night-time recognition.
- Whistle.

100 N category standard features :

- Self-righting capacity, head is supported above the water.
- Buoyancy provided by polyethylene foam (except fro Tempest Elite, filled with extra-soft PVC foam).
- Outershell 100% polyester, fluo orange for optimum visibility.
- 100 cm^2 retro-reflecting stripes for night-time recognition
- Whistle.

SOLAS lifejackets

	Adult	Child	Toddler/Infant
Wearer	43 -140 kg (waist 175 cm max.)	15 - 43 kg	< 15 kg
Buoyancy	**165 N**	**135 N**	**80 N**
Storage dimensions (folded)	32x32x25 cm LxWxTh.	30x30x22 cm LxWxTh.	52x30x10 cm LxWxTh.
Features	Buoyancy provided by polyethylene foam distributed in chestblock and collar block for extra head support. Chin strap to optimise head position, adjustable belt with plastic buckles, retroreflective tapes (400 cm), floating safety line, whistle, optional flashlight.		
Extra	-	-	Double crutch strao, grabloop on collar, zip closure.

SOLAS-MED
96/98
OMI MSC 200 (80)

LIFERAFTS

ISO 9001

BUREAU VERITAS
Certification

Our philosophy to safety and our very demanding standards in the production of liferafts have allowed Plastimo to be awarded the official recognition of its quality assurance procedures, according to the ISO 9001 : 2008 international standards

The BV/ISO 9001 : 2008 is an international reference, only awarded after a very serious audit of the company's quality procedures. By obtaining this most valuable certificate, Plastimo confirms that it belongs to the top those that customers and suppliers trust for quality products and service.

Plastimo exclusive:

The double chamber (air chamber within an envelope) is used on all our liferaft models. Plastino has selected a 1100 Decitex PVC for the outer envelope because it offers extreme resistance to abrasion. The inner chamber is constructed from an outstanding polyurethane sheet which guarantees an absolute water and airtightness, and offers an astonishing stretching capacity of 500%.

Type	ISO 9650-1	ISO 9650-2
Use	**OFFSHORE, BLUE WATER**	**COASTAL AREA**
Type of vessel	4 to 12 persons	4 to 10 persons
Max. launching height	6 metres	4 metres
Inflation temperature	• Group A : -15 C to +65 C • Group B : 0 C to +65 C	0° C to +65° C
Bottom	• Gr. A : Insulating double fioor • GR. B : Single floor	Single floor
Free-board	250 mm (4 pers) 300 mm (> 4 pers)	200 mm (4 pers) 250 mm (> 4 pers)
Inside area / person	0.372 m^2	0.250 m^2
Buoyancy / person	96 litres	82 litres
Canopy	Deploys automatically	Deploys manually
Outside light	4.3 cd	0.75 cd
Retro-reflective tapes	1500 cm^2	1500 cm^2
Survival kit	Emergency > 24 h / Standard < 24 h	Standard

LIFERAFTS

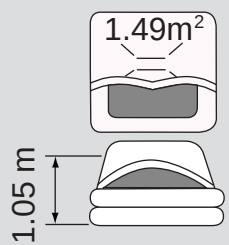
ISO 9650-1 Transocean

New generation liferaft, developed from the ISO 9650 standard.
Designed for navigation in extreme conditions : large capacity and quantity of ballast pockets, large area drogue anchors, -15°C inflation temperature (group A), double insulating floor, fluo orange canopy with automatically erecting arch tube, 4.3 cd. outside light, radar- and retro-reflecting stripes.

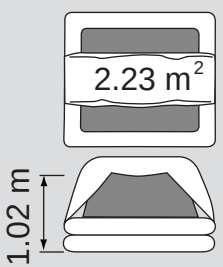
The Transocean ISO 9650-1 also features a ballasted reversible ladder and grab handle to ease embarking. This system allows the victim to hoist himself up on the ladder and then topple easily into the raft. Should the liferaft inflate upside down, the boarding ladder simply reverts, to allow the victim to pull himself on the capsized liferaft and make it easier to turn over the raft in its natural position.

Two types of survival equipment packs are available, depending on the expected time that the victim may spend in the raft waiting for the rescue teams : the emergency pack includes water and food (rescue forces expected after 24 hours) and a standard pack (rescue forces expected within 24 hours).

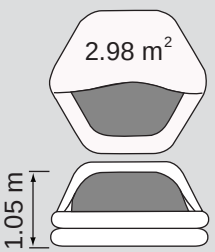
The survival pack can be completed with a grab bag : see page 90-91.



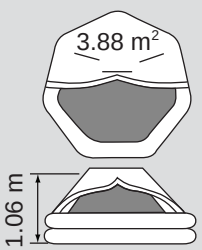
4-man transocean



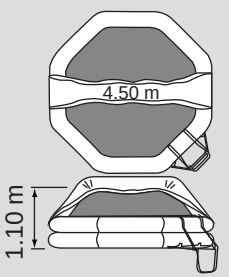
6-man Transocean



8-man Transocean



10-man Transocean



12-man Transocean

SOLAS lifebuoy

Rescue ring

Set of products complying with SOLAS 74.96 standard :

- 1ring lifebuoy
- 1 floating light
- 30m of yellow floating retrieval line Ø 8mm
  Cleverly packed in a yellow coated fabric storage bag, impervious to UV-rays and fitted with clips for attachment to pulpit.

SOLAS-MED

Stella LED floating lifebuoy light

Very compact lifebuoy light, low power consumption, operates with R20 alcaline battery.

- Light intensity: 2 candela
- Duration: approx. 8 hours at 60 flash/minute
- Battery: 1 x R20 battery

Throwing retrieval line

30m floating polypropylene, compliant with regulation to equip lifebuoys.

MARINELEC TECHNOLOGIES

Marine Security

BRIDGE WATCH ALARM SYSTEM - BNWAS

ISO 9001

BUREAU VERITAS
Certification

A single product for the wheelhouse vigilance:

No more potentially dangerous situation with these products designed by Marinelec Technologies to ensure the on watch vigilance.

The LYNX V3 and V3S bring security and serenity to the crew.

These equipments are designed in compliance with regulation regardless of the size of your vessel.

CHARACTERISTICS:

Bridge navigational watch alarm system to detect operator disability, that has to be periodically reset with a push button.

- Complies with resolution MSC 128 (75)
- Adjustable between 3 and 12 minutes (key switch accessible function)
- LED indicating collapsed time or outstanding period
- Schematic description of functioning
- Power supply: 24 VDC

FIRE DETECTION ALARM PANELS

ISO 9001

BUREAU VERITAS
Certification

In order to prevent any risk linked to fire activating on board, Marinelec Technologies has designed a range of equipments intended for fire detection

These equipments, conventional or addressable are especially designed to meet the requirements of size and configuration of your ship.

Fire detection alarm panels, associated detectors and accessories are approved by classification societies (DNV, Wheelmark), and comply with the European directive.

CHARACTERISTICS:

Equip any kind of vessel from 1 to 256 detectors or call points, with conventional (up to 4 or 8 zones) or addressable product (up to 8 loops and 32 zones).

- 24 VDC main and emergency power supply (optional 230 VAC with external converter)
- V.D.R output
- Optical smoke, heat, flame detectors, safe detectors for explosion proof areas.
- Loop temporization for technical spaces
- Compatible with all kinds of sirens, rotating lights

BILGE DETECTION ALARMS

Water ingress, watertight doors and windows opening, electrical or engine faults, other risks, etc. Marinelec Techologies designs solution to centralize your alarm management.

These equipments, adapted to your ship size and specificities, are in compliance with several regulations and are approved by Bureau Veritas and The French Merchant Marine.

CHARACTERISTICS:

Displays Units (depend on model):

- Power supply from 18 to 32 VDC
- 8, 16 or 32 digital inputs
- Alarms configurable temporization
- NO/NC configurable
- Protected against polarity inversions and overvoltage
- Sirens output
- Alarm memorization as long as fault has not disappeared
- Group of alarms
- V.D.R output
- Backlighting
- Line monitoring

Bilge Detectors

- Float or capacitive
- 12 or 24 VDC
- Compatible with all digital input display units

ISO 9001

BUREAU VERITAS Certification

LEVEL MEASURMENT GAUGES, DETECTORS AND DISPLAYS

ISO 9001

BUREAU VERITAS Certification

To know the quantity of embarked liquid aboard your vessel is very important. It permits a rigorous management of your consumption and help to equilibrate the vessel.

These equipments are manufactured and calibrated in function of the tanks and monitored embarked liquids.

CHARACTERISTICS:

Level measurement gauges:

Depend on their use, tank material, height, liquid, accessibility, we will advise you on the technology to choose:

- Float gauge
- Capacitive
- Pressure sensor gauge
- Normalized output signals: 4-20 MA or 0-10 VDC

Level detectors:

Float gauges, detectors are designed depending on use constraints:

- Materials: Delrin, stainless steel or copper
- Fixing flange dimensions

Display units:

- Mono channel or multi channels on customer specification
- Bar graph display on LED or touch screen
- Low and high level alarm output
- Level indicator for each tank

KOBELT

Marine Control Systems

Standard features

Our control heads are available in a polished brass finish, polished chrome and black epoxy. When ordering please state finish required. The controls are equipped with adjustable friction or detent. A choice of various handle lengths is available; when ordering please specify. Neutral safety switches are available for all models. Stroke limitation screws are also provided on one and two handle control heads. All domes are removable for easy installation and adjustment. Kobelt Manufacturing produces a vast number of different control components and it is, therefore, very easy for us to produce **custom-made** control heads, all simply assembled from standard components in various configurations.

When ordering control heads, specify model number and letter code designation.

Ordering Information:

Letter code designations

A – One short handle with friction and one long handle with detent.
AA – One short handle with friction and one long handle with friction.
B – Two long handles with detent.
C – Two long handles with friction.
D – Two long handles with one detent and one friction.
E – Two short handles with detent.
F – Two short handles with friction.
G – Two short handles with one detent and one friction.
*H – With one neutral safety switch.
*J – With two neutral safety switches.
K – With chrome finish cover and handle.
L – With polished brass finish cover and handle.
M – With black epoxy finish cover and chrome handle.
MM – With black epoxy finish cover and handle.
N – One long handle with detent.
NN – One long handle with friction and detent.
O – One long handle with friction.
P – One short handle with detent.
PP – One short handle with friction and detent.
R – One short handle with friction.
S – Right hand model.
T – Left hand model.
U – Curved handle.
V – T-bar handle with coloured plastic grips.
W – Removable sailboat handle.
Y – T-bar handle (standard).
Z – With riveted metal labels.

*When ordering Kobelt adapter kits for control heads, specify the control head number followed by -0901 for 30 series adapter kit and -0902 for 40 series adapter kit. For neutral safety switch please specify control head number followed by -0903. * Neutral safety switch is normally installed on the detented handle.*

Quick Selection Guide

NUMBER OF STATIONS

If you want to be in control at 1 or 2 locations (“stations”), then push-pull controls will work for you. If you have 3 or more stations, push-pull might work but generally people should use Electronic, or Pneumatic or Wire-Over-Pulley controls.
We recommend Electronic controls for most three station systems.

SIZE OF VESSEL

Push-Pull is a mechanically connected system. It uses cables to connect control heads to the clutch and throttle. If the total length of cable is less than 50 feet (15 meters), push-pull can work for you. If the cables need to have many bends, or the connection length is more than 50 feet, Electronic controls would be the best choice. That depends largely on how easy it is to operate the clutch and engine interfaces. Some are very stiff and need a powered actuator.

There are vessels with 80 feet of push-pull cable that work well. If you need more than 50 feet for a push-pull system, please contact us.

We would need to evaluate your requirements. Please tell us:

- the number of cable bends,
- the cable length, and
- the number of stations.

We will give you our recommendation for a good working control system.

Tech Tip: For 2 station systems, the cable length is considered to be the total length for both stations. For example, a 20 foot cable to one station, plus a 30 foot run for the other station, is a total of 50 feet. If you are using more than 30 feet of cable, you should use the 40 series cable. It will last longer and run smoother.

43 Series Cable

47 Series Cabl

Separate handles: One for clutch and one for throttle

EVERY CONTROL HAS VERY FLEXIBLE ORDERING OPTIONS.

ONE ENGINE

Order one **2009-AK.** The 2009 is our most popular push-pull control head.
The control shown on the left is the **“AK”** version. The “A” means that the control comes with one long handle for clutch, and one short handle for throttle. The clutch handle has an adjustable neutral detent. A detent gives you a “click” so you know where neutral is (without looking at the control).
The throttle handle has an adjustable friction so you can get the right feel for your control. “K” is for a chrome finish. There are many other options available to you. Options are explained on the individual product pages.

TWO ENGINES

Order two **2009-AK** or if you want both clutch handles on the same control head, order:

One 2009-BK Controls Two Clutches, and
One 2009-FK Controls Two Throttles.

The “BK” has two long handles, each with an adjustable neutral detent.
The “FK” has two short handles with adjustable frictions.
If you have two stations, simply double the quantity that you need.

The following controls can be substituted for the 2009:

2011	This product is a heavy duty version of the 2009 and is better for longer cable runs.
2012	This product is the toughest push-pull control available and also allows for 4” stroke.
2014	Illuminated control head (for those quiet nights at sea).
2015	A different style and fewer options. e.g. No Interlock.

THREE OR MORE ENGINES

We offer a stackable control head that is commonly used by the premium race boats. This is our 2016 control head. This model shows two throttles and two clutches. We can make any combination of handles to meet your needs.
If you have two stations, simply order two identical control heads.

Combined clutch and throttle: “ Single lever ”

ONE ENGINE

One Station

Order one **2046-KUZ.** The 2046 is our most popular single-lever control. It has various appearance options. Some of the options are:

- Curved or straight handles.
- Chrome, black, or polished bronze

Other options are available on request.

One Station

The **2047-KUZ** is a twin engine version of the 2046 control head.
“KUZ” means chrome, curved handles and a metal label on the dome.

Alternatively, two single engine controls can be used, such as the 2046.

Two Stations

This is the best two station system on the market. The unique design is veryeasy to operate. Order:
One **2091-KYZ** Primary control head, and One **2093-KYZ** Secondary control head.

“KYZ” means chrome, straight handles, and a metal label on the dome.

The 2091 can be substituted with either of these controls:

2095	Illuminated primary control.	2081	Has a separate small lever for trolling.
2085	Illuminated version of 2081.	2044-91	Side mount primary control.

The 2093 can be substituted with:

2097 Illuminated secondary control.

The Mighty Mariner – Mechanical

The system is comprised of the basic 6505S control head in combination with the 6527-S electronic actuator, both in sturdy bronze and stainless steel.

The control head is completely watertight from the topside* and can be used in any location onboard. The 6527-S actuator is a stand-alone actuator† with manual override. The electronics are stored in the housing of the actuator itself, eliminating the need for a separate microprocessor unit. This simplified control system is perfectly suited for most boats, and has all the extra safety features found exclusively at Kobelt.

The Mighty Mariner is designed for Do-it-yourself installation. Communication is via a CAN Bus. This system offers up to 4 stations with station interface, station lock, overriding throttle and synchronization⁎.

* The bottom is not watertight and must be protected from the environment.

† Can only be used for clutch and throttle functions.

⁎ Synchronizer kit is extra.

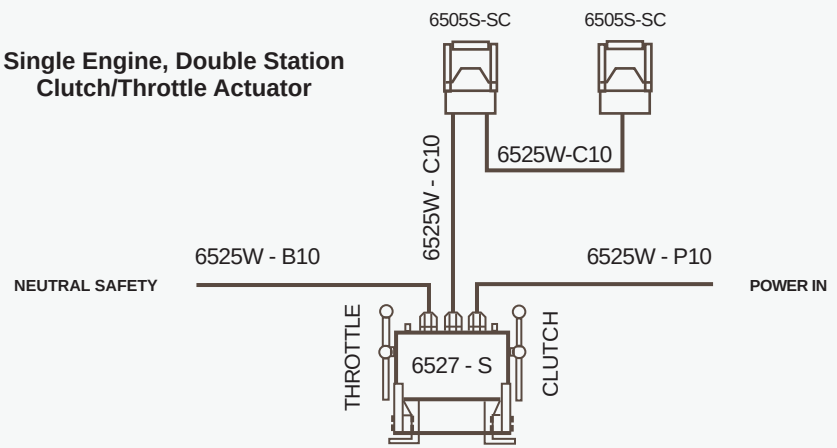
Choose The Mighty Mariner That's Right For Your Vessel

Features:

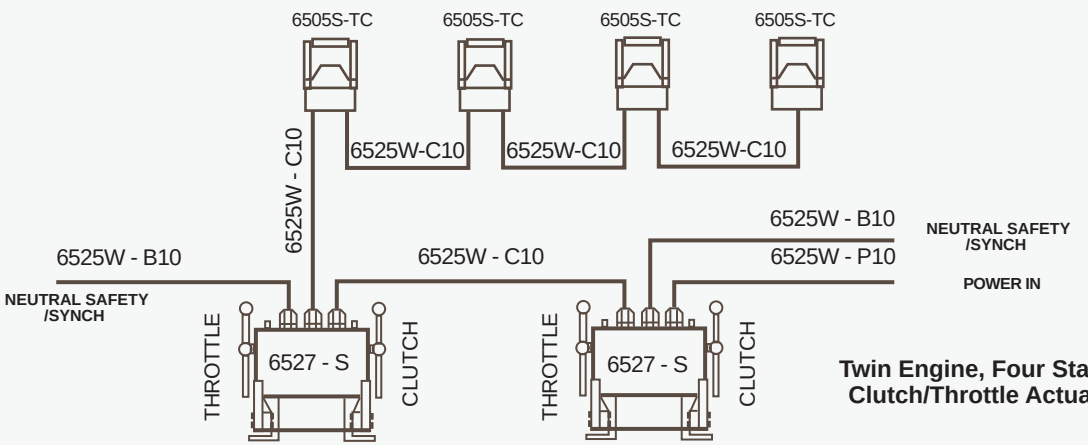
- Self monitoring
- System temperature monitoring
- Clutch and throttle delay
- Neutral safety
- Station lock
- Wire break monitoring
- Potentiometer monitoring
- Overriding throttle
- Engine synchronization

6505S Control Head

6527-S Actuator



Single Engine, Double Station Clutch/Throttle Actuator



Twin Engine, Four Station Clutch/Throttle Actuator

The Mighty Mariner – Electronic

The Mighty Mariner system can be used with Electronic Clutch and Throttle interfaces.

The control heads are the same. However, a model 6503 processor is used to:

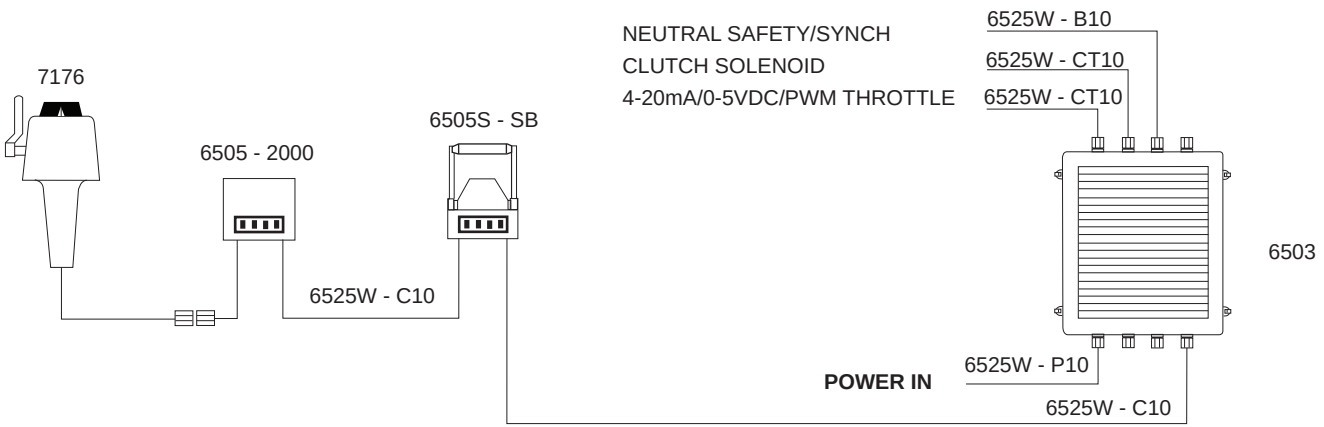
- Monitor all the input information from control heads and switch panels
- Communicate to the control heads and sonalerts
- Operate a clutch solenoid
- Operate the throttle signal for the engine

The 6505-2000 remote selector panel (shown on right) extends the range of products that can be used with the Mighty Mariner system. This remote panel has all the basic functions available on a 6505S control station and is suitable for inside or outside installations.

The control heads that can be used now include:

- 6506 Side-mount control
- 6555 Illuminated control
- 7176 Walk-about control
- and various other controls including joysticks

The drawing shown below is for a single engine, two station system.
You can get systems for one or two engines, and from one to four stations.



6505S
Control Head
Shown in single engine configuration

6505-2000
Remote Panel

6503
Electronic Interface

PLASTIMO

advanSea

Electronic & Navigation

Only the best will do !

- For ultimate quality, Plastimo selects the best components in order to ensure that your compass is a highly dependable instrument which will provide years of reliable service.
- A sapphire equips every compass: its hardness is a warranty for the long life and precision of your compass.
- All plastimo compasses feature an anti-vibration system, which ensures a minimal contact between the pivot and the sapphire cup ; the latest-born “Vibration absorber” device damps spinning caused by high-speed pounding and vibration.
- A compass is a meticulously engineered instrument:
all the “precious” components are produced by Swiss clock-makers, worldwide famous for their legendary precision.
- The soft Viton® diaphragm or the semi-soft ultra-sound welded diaphragm is fully waterproof and has extreme expansion and retraction capacity: it compensates the fluctuations in fluid volume caused by the differences in temperature and atmospheric pressure.
- All plastic components -and more specifically the material used for the dome- are carefully selected to withstand shocks, UV-rays and harsh marine environment.
- The crystal transparency of the dome and the exceptional magnifying index of the fluid contribute to the perfect legibility of the card.

Viton® is a registered trade mark of Dupont de Nemours.

How to select your compass

What type of boat do you own?

You should know that the main differences between a sailboat and a powerboat (in terms of compass construction) are the heeling angle and the resistance to vibration and shocks. These technical elements are of course integrated in the engineering of our compasses..

What is your navigation programme ?

Day sailing, cruising, passage making, racing… you will select a compass with or without lighting, with or without compensation, with the right card balanced for the geographical card where you are going to sail, with a plain or tactical card.

Which size of compass ?

If the compass is designed to be read from a distance, you will need a larger compass. Generally speaking and as a benchmark indication, you should selecta card apparent diameter between 70 and 90 mm, for a 5 to 9 m boat (17-30 ft).

Which type of mounting ?

Flushmounted on a horizontal, vertical or inclined bulkhead, on a binnacle or minibinnacle, on a bracket, in a take-away or mast-mounted version… you must choose a compass which remains easily readable (shape of card) at all times. The Plastimo range of compasses covers all mounting options and all our models are designed for minimum drilling and screwing.

Flat card

A flat card is read on the back edge, where the lubberline is located. The fluid magnifies the numerals which become easier to read. In addition, the flat card provides a global view of the card and its North point in relation to the boat's direction.

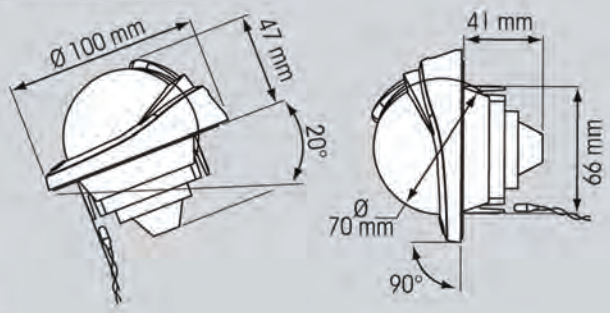
Conical or cylindrical card

Reading from the front and the top of the card. In addition to front reading, this type of card usually features numerals and cardinal points on the top part of the card, thus providing two reading possibilities. This card is particularly suitable when steering or piloting is done sitting or standing.

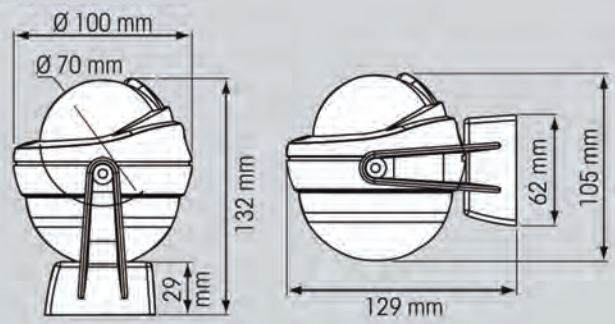
Offshore® 75

	OFFSHORE 75
Boat size	**Powerboats of 5 to 8 metres (17 to 26 ft).**
Compass card	Conical card graduated every 5° apparent Ø 70 mm. Heading numerals every 30°.
Mounting	Flushmount : on a horizontal, vertical or inclined surface.
	Mini-binnacle : mounted on a horizontal surface thanks to a clip-plate (supplied) ; compass is removable.
	With a bracket : mounted on a horizontal or inclined surface. Compass is removable thanks to clip-plate.
Resistance to vibrations and hull pounding	Magnetic cell equipped with the unique "Vibration Absorber" system.
Lubber line	1 lubber line.
Compensation	Optional (on mini-binnacle and bracket-mount models)
Lighting	Included on all Offshore models (1 bulb 12 Vdc). No lighting on Offshore Basic.
Supplied with	Clip-plate, screws, drilling template.
Approval/homologation	ISO 613 compliant.

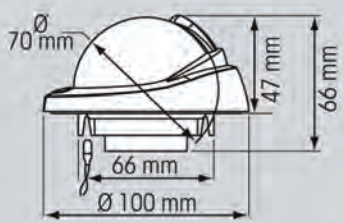
Flushmount/dashboard



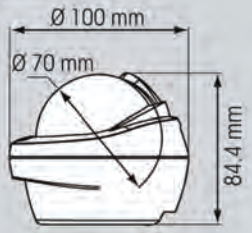
Bracket-mount



Flushmount

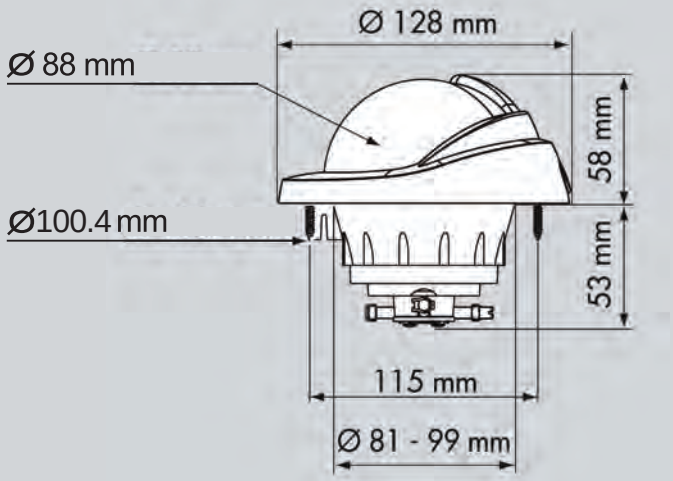


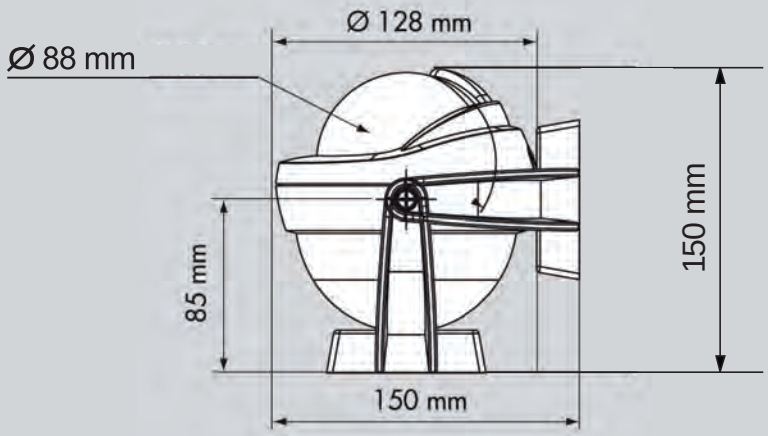
Mini-binnacle



Offshore® 95

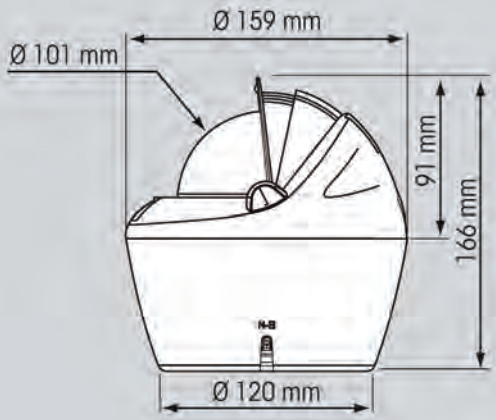
	OFFSHORE 95
Boat size	**Powerboats from 6 to 10 metres (19 to 33 ft).**
Compass card	Conical ar flat card graduated every 5°, apparent Ø 81mm. Heading numerals every 30°.
Mounting	• Flushmount, on a horizontal surface. • With a bracket : mounted on a horizontal or inclined surface. Compass is removable thanks to clip-plate.
Resistance to vibrations and hull pounding	Magnetic cell equipped with the unique "Vibration Absorber" system.
Lubber line	1 lubber line.
Compensation	Supplied as standard.
Lighting	1 bulb 12 V, included.
Supplied with	Clip-plate, screws, drilling template.
Homologation	ISO 613 compliant.

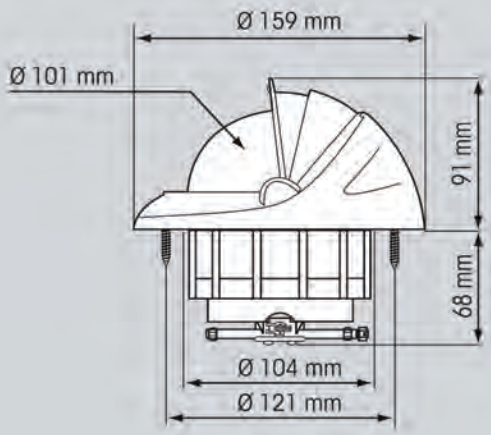


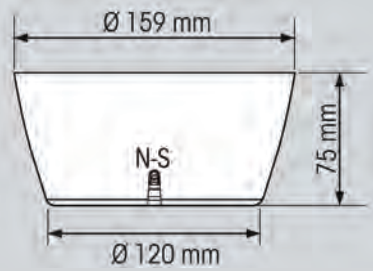


Offshore® 115

	OFFSHORE 115
Boat size	**Powerboats from 8 to 12 metres (26 to 40 ft).**
Compass card	Conical ar flat card graduated every 5°, apparent Ø 101mm. Heading numerals every 30°.
Hood	Articulated protective hood : built-in sliding cover, composed of 3 telescopic parts, with cushioned closing.
Mounting	• Flushmount, on a horizontal surface. • Binnacle available as option.
Resistance to vibrations and hull pounding	Magnetic cell equipped with the unique "Vibration Absorber" system.
Lubber line	1 lubber line.
Compensation	Supplied as standard.
Lighting	1 bulb 12 V, included.
Supplied with	Screws, drilling template.
Approval/homologation	SOLAS-MED 96/98.

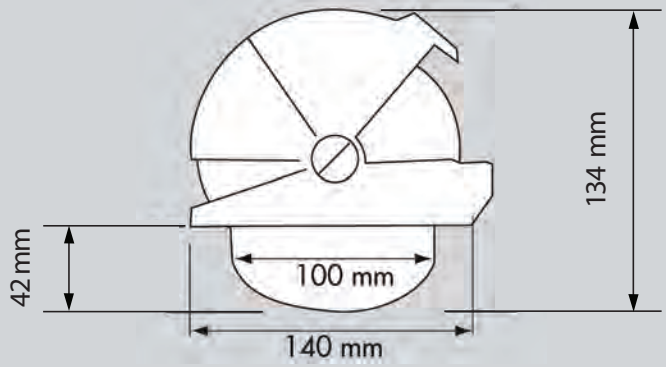


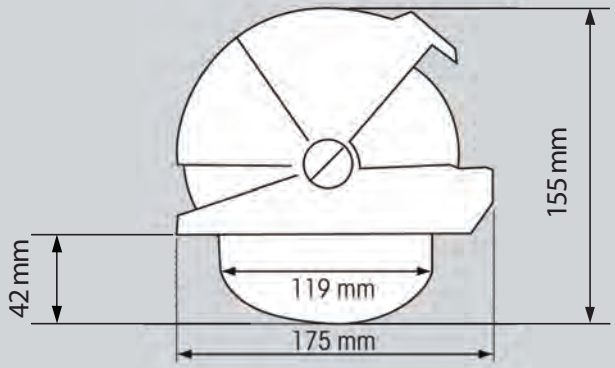




Offshore® 105 & 135

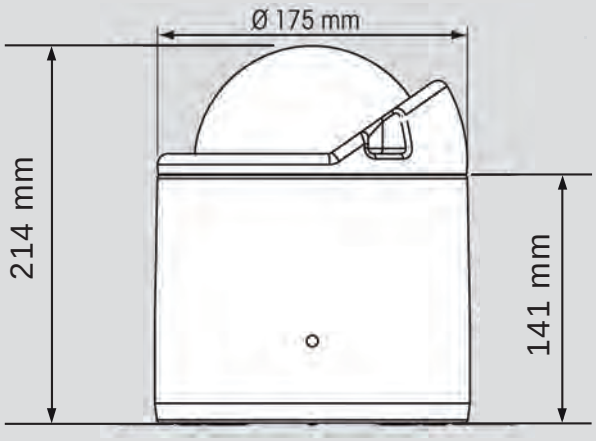
	OFFSHORE 105	OFFSHORE 135
Boat size	**Powerboats of 5 to 9 m (17 to 30 ft).**	**Powerboats of 10 m and above (33 ft +).**
Compass card	Graduated every 5°, apparent Ø 91mm. Heading numerals every 30°.	Graduated every 5°, apparent Ø 130 mm. Heading numerals every 30°.
Hood/sunshade	Articulated protective hood : built-in sliding cover, composed of 3 telescopic parts.	Articulated protective hood : built-in sliding cover, composed of 3 telescopic parts.
Mounting	Comes as standard in a flushmount version. Can be bracket-mounted with the addition of optional bracket.	Comes as standard in a flushmount version. Can be bracket-mounted with the addition of optional bracket.
Resistance to vibrations and hull pounding	Magnetic cell mounted on shock absorbers.	Magnetic cell mounted on shock absorbers.
Lubber line	1 lubber line.	1 lubber line.
Compensation	Supplied as standard.	Supplied as standard.
Lighting	• On flat card: 2 bulbs, 12V. • On conical card: 1 bulb, 12V.	• On flat card: 2 bulbs, 12V. • On conical card: 1 bulb, 12V.
Approval/homologation	ISO 613 compliant.	SOLAS-MED 96/98

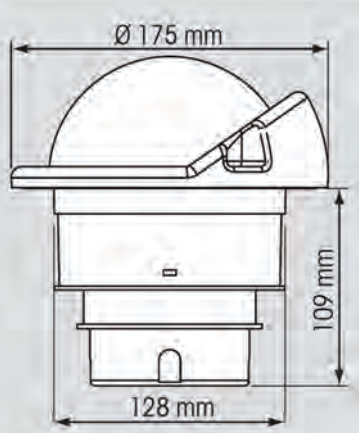




Horizon® 135

	HORIZON 135
Boat	**Yachts -sailing and power- over 9 m (30').**
Card	Flat card graduated every 5°. Apparent Ø 130 mm.
Mounting	Flushmount on horizontal surface or pedestal-mount (with optional binnacle).
Lubber line	3 lubber lines at 45°.
Compensation	Supplied as standard. Tunnel rods allow easy access to compensators through the binnacle.
Lighting	12 V, supplied as standard.
Supplied with	Sunshield and protective cover, drilling template.
Homologation	ISO 613 compliant





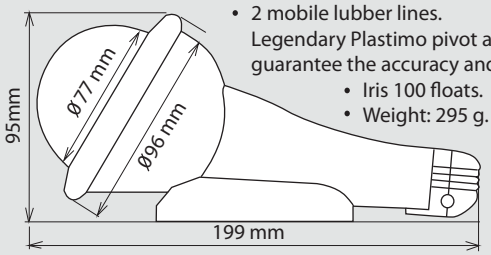
Handbearing compass

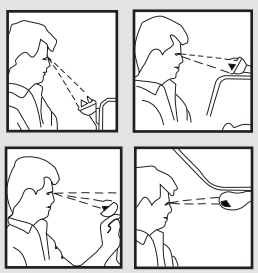
Iris 100

The Iris 100 is a universal compass :

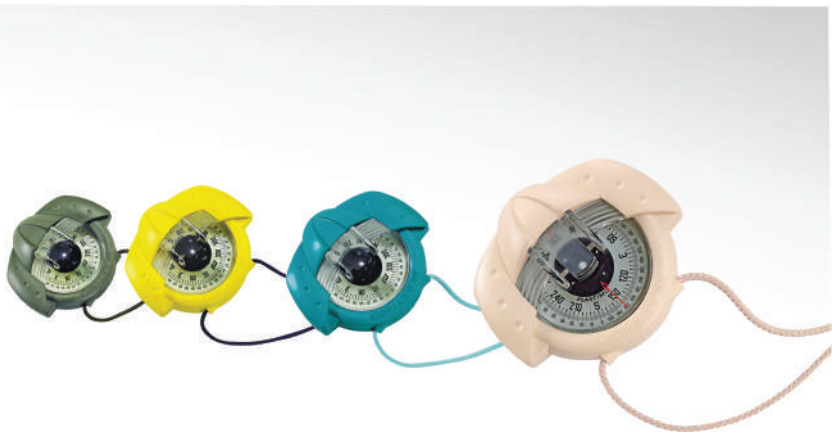
- It can be installed on any inclination or position : vertical, horizontal, laying flat, upside down...
- It is a course compass which can also be used to take bearings.
- It can be taken away and moved around the boat : it is simply clipped on a smooth-edge bracket, designed not to catch sails or hurt fingers.
- A soft rubber casing provides efficient protection against shocks.

- Conical card with double reading (direct and horizontal).
- Gimballed magnetic set: the card remains perfectly horizontal, whatever the angle of the compass installation.
- 2 mobile lubber lines.
  Legendary Plastimo pivot and hard stone guarantee the accuracy and the durability.
- Iris 100 floats.
- Weight: 295 g.



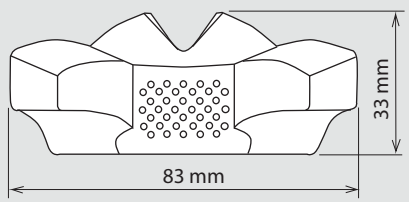


Iris 50



The Iris 50 compass is a sturdy and elegant marine compass.

- Good protection against hard knocks. The pivot and very hard stone are a guarantee of long life and shock resistance of your compass.
- Outstanding legibility of the card, with one-degree graduations. No parallax error, no need to alternate close-reading to read the card and infinite-reading to take bearings.
- Optimum conditions to take bearings, thanks to the superb card stability and the wide 20° field of view, which will accommodate the roughest sea conditions.
- Soft bottom cell : Engineered using ultra-sonic welding, it acts like an expansion diaphragm, preventing the formation of bubbles and leaks.



- Two functions : handbearing and traditional compass.
- Graduation : every 1°.
- Field of view : 20°.
- Clearance : 12°.
  Built-in photoluminescent lighting.
- Red lubber lines.
- Weight : 105 g.

5 year Warranty

Combo C.56

All-in-one navigator : combines a high resolution VGA ***GPS chart plotter*** *with powerful dual frequency* ***sonar.***

FEATURES

- 5.6“ VGA (640 x 480) screen bonded,
- Ultra-bright daylight viewable display.
- 50/200 kHz dual frequency sonar with powerful 600 W RMS power output to display targets up to 600 m (2000 ft) depending on the connected transom.
- Digital speed and temperature data.
- “SnapShot” function : save your favourite sonar or chart images in the onboard memory (128 Mb) or removable SD-HC card, enabling transfer to your PC for viewing and printing.
- CMAP MAX on SD card format.
- NMEA0183 interface : 2 inputs and 2 outputs.
- NMEA2000 interface : to repeat or process data from other sources such as engines, intelligent transducers and navigation instruments.
- AIS compatible.
- Waterproof to IPX7

GPS T.56

High resolution VGA GPS chart plotter, with both NMEA0183 and 2000 connections. This makes the T.56 a complete multi-function navigation repeater of all external data on board compatible external devices

FEATURES

- 5.6“ VGA (640x480) screen bonded, ultra-bright daylight viewable display.
- Digital speed and temperature data
- SnapShot” function : save your favourite chart image in the onboard memory (128 Mb) or removable SD HC card, enabling ransfer to your PC for viewing and printing.
- CMAP MAX on SD card format.
- NMEA2000 interface : to repeat or process data from other sources such as engines, intelligent transducers and navigation instruments.
- NMEA0183 interface: 2 inputs and 2 outputs
- AIS compatible.
- Waterproof to IPX7

GPS T.50

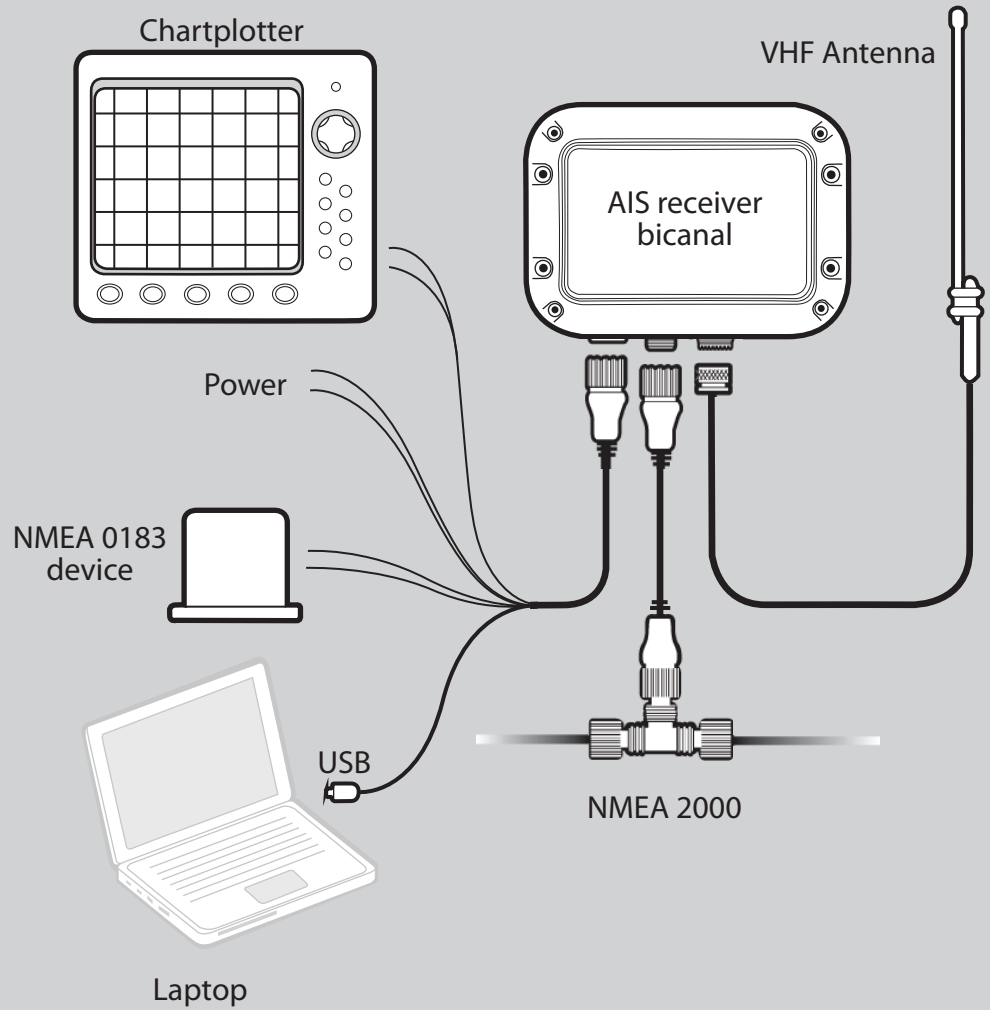
A compact chart plotter with bright and sharp QVGA display. The T.50 combines a fully featured navigation program with a simple intuitive operating system that allows fast and easy access to frequently used functions (GOTO, favourite screens…).

FEATURES

- 5“ LCD unit, QVGA bright and sharp (320 x 240 resolution),daylight viewable display.
- “SnapShot” function : save your favourite chart image inthe onboard memory (128 Mb) or removable SD HC card, enabling transfer to your PC for viewing and printing.
- CMAP MAX on SD card.
- NMEA 0183 compatible : 2 inputs and 2 outputs.
- AIS compatible when connected to an AdvanSea receiver or an NMEA0183 compatible instrument.
- Waterproof to IPX7.

GPS & Combo

MAIN FEATURES	C.56	T.56	T.50
LCD display type	LCD - TFT - LED backlighting		
LCD diagonal	142 mm (5.6”)		127 mm (5”)
Screen Resolution	640 x 480 (VGA)		320 x 240 (QVGA)
Operating voltage	10 - 34 V		
Memory	128 Mb		
Embedded chart	World		
Cartography	CMAP NT MAX (SD-Card support)		
GPS antenna type	Integrated, 16 channels / optional: BNC - socket external antenna		
Waypoints	9999		
Routes	250 routes with 500 waypoints per route		
Track logs	Max.10		
Chart display	North / Track / Course		
Plotting scale	0.005 NM / 500NM		
Data interfaces	NMEAO183 (2 in & 2 out); NMEA2000		NMEAO183 (2 in & 2 out)
Fuel management	NMEA2000 compatible engines		No
Sonar	Yes (50/200khz)	No	
Max. Depth	600 metres	-	
Output power	600 W RMS	No	
Environmental rating	Waterproof to lPX7		

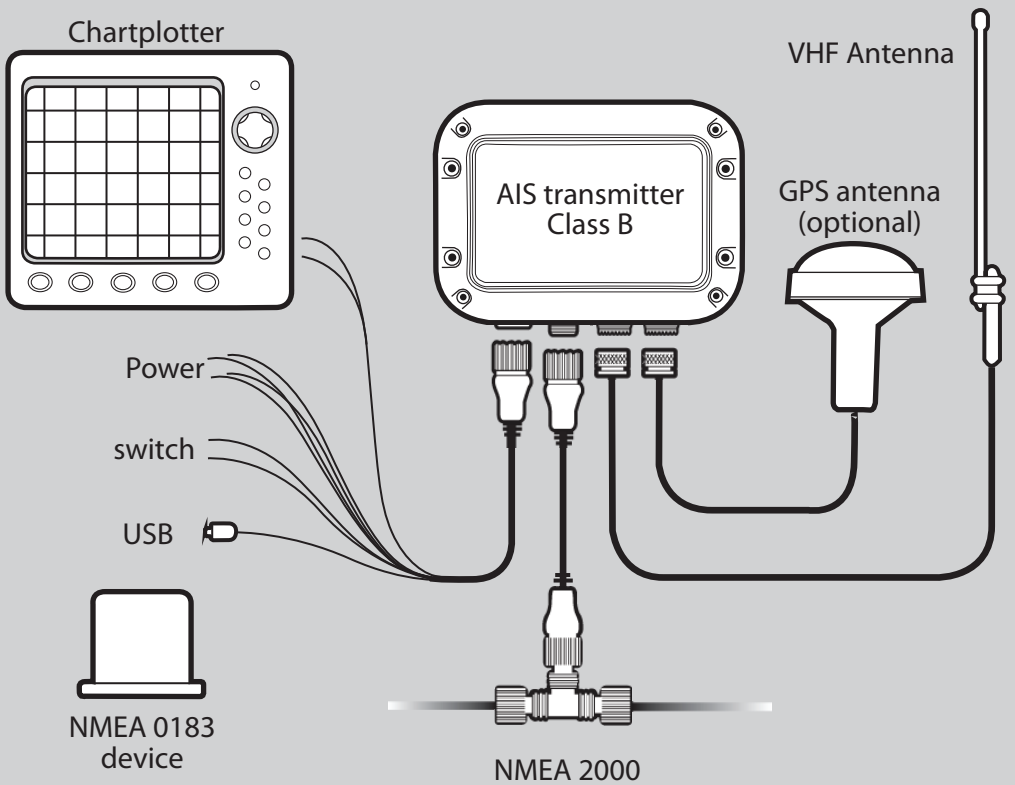


AIS RX-110

Receiver

The RX-110 outputs the received AIS data transmitted by vessels with class A and B transponders on the VHF network.

NMEA 0183
USB
NMEA 2000



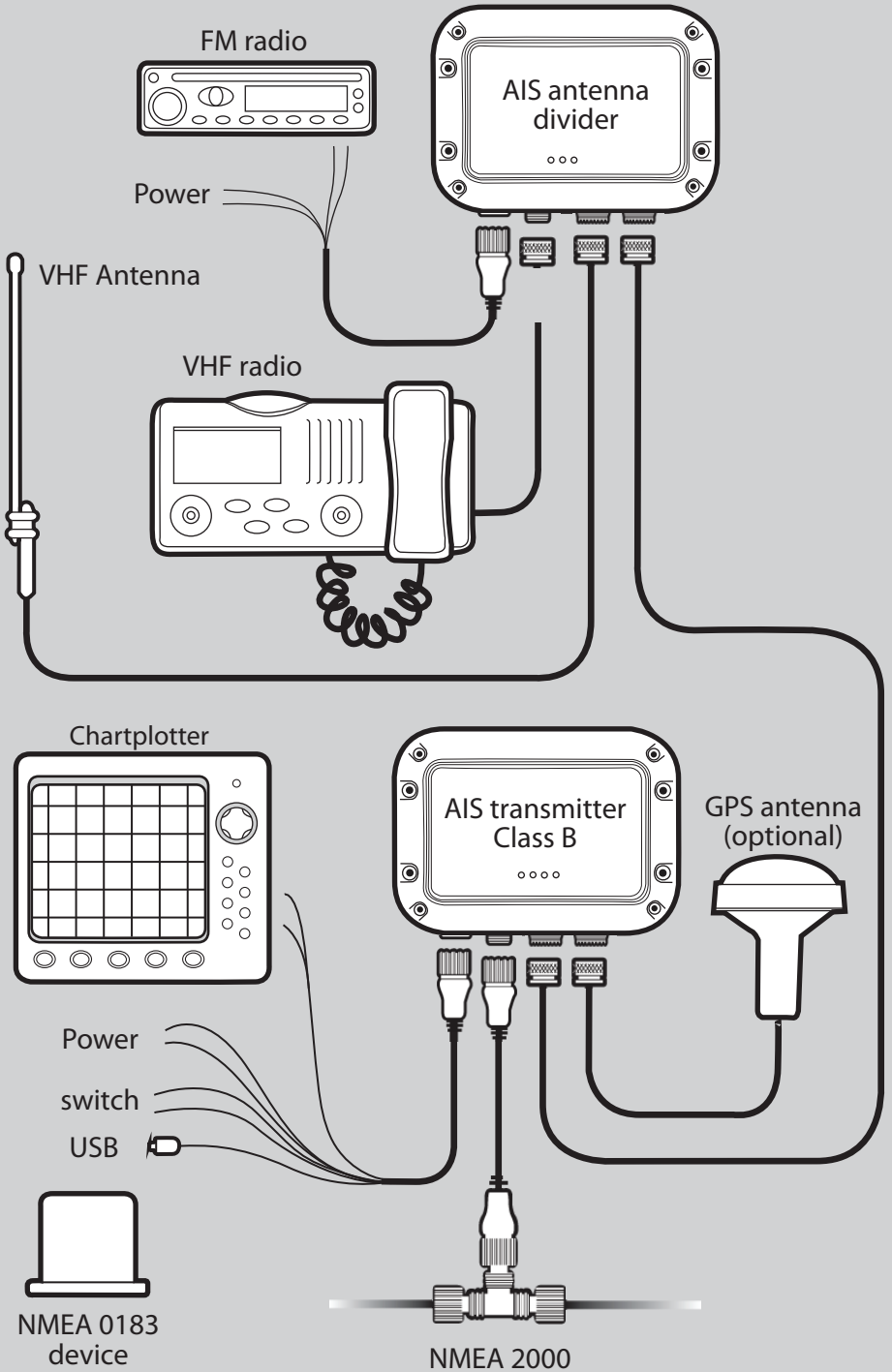
AIS TR-210

Transceiver

See and be seen.

NMEA 0183
USB
NMEA 2000

This Class-B AIS transceiver module enables both the transmission and reception of AIS data from your boat.
Your vessel identification data is programmed into the TR-210 using the software and cable included with the transceiver.
The TR-210 AIS transceiver output connects to your GPS/ Plotter via the NMEA 0183 or NMEA 2000 (depending on instrument compatibility) interface and to your PC through the USB connector.
The TR 210 has an internal GPS antenna providing vessel position data to the AIS transmitter.
An external GPS antenna can be connected if necessary



AIS SPLIT-110

VHF Splitter

Enables the simultaneous use
of the vessel's installed marine VHF radio
and an AIS receiver via a single VHF antenna.

Specifications

	AIS RX-110	AIS TR-210	AIS SPLIT-110
Dimensions	140 x 100 x 42 mm (L x W x H)	140 x 100 x 42 mm (L x W x H)	140 x 100 x 43 mm (L x W x H)
Weight	250 g	250 g	250 g
Power	12 to 24 VDC - Power consumption : 200 mA@12VDC	12 to 24 VDC - Power consumption : 170 mA@12VDC	12 to 24 VDC - Power consumption : < 150 mA@12VDC
Electrical interfaces	NMEA 0183, 38400 Baud (output), NMEA 0183 4800 Baud (input) - USB - NMEA 2000®	NMEA 0183, 38400 Baud (output), NMEA 0183 4800 Baud (input) - USB - NMEA 2000®	VHF antenna output (SO239 connector) - VHF radio input (SO239 connector) - AIS input (BNC connector)
Supplied with	Power, NMEA 0183 & USB cable - User manual - Quick start guide - Warranty card - CD & Fixing screws.	Power, NMEA 0183 & USB cable - User manual - Quick start guide - Warranty card - CD & Fixing screws.	Power cable - VHF radio interface cable - AIS interface cable - User manual - Quick start guide - Warranty card - CD & Fixing screws.
User interface	2 LED indicators for power and AIS message reception	4 LED indicators for power, transmit timeout, Error and Silent mode	3 LED indicators for power, VHF and AIS transmission
Operating temperature	-25 °C to +55 °C	-25 °C to +55 °C	-10 °C to +55 °C
Waterproofness	IPX7.	IPX7.	IPX7.

Echofish 300

Available with floating sensor or handheld sensor

Both versions are supplied as standard with fixing bracket.

- Separate transducer with backlit graphic screen **42 x 48 mm FSTN, 128 x 64 pixels.**
- 200 kHz sensor with 45° beam.
- Ultra-light splashproof (IPX4) case : 200 g, ncluding batteries.

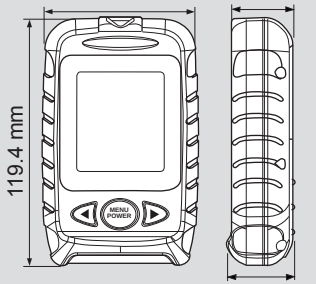
Echofish 400

Available with floating sensor only.

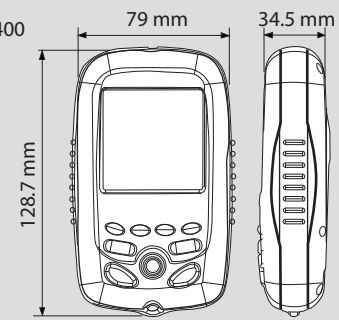
Supplied as standard with floating sensor, 8-m cable and fixing bracket.
The same features as top-end models, with a high resolution display.

- Separate transducer with backlit 47 x 47 mm display. Graphic LCD 16-level greyscale display, 160 x 160 pixels.
- 200 kHz / 83 kHz dual frequency fishfinder with 20°/60° beams.
- Ultra-light splashproof (IPX4) case : 187 g, including batteries.

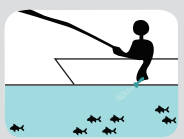
Echofish 300



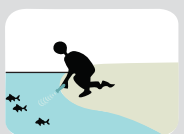
Echofish 400



Handheld sensor version

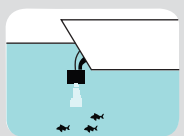


On boat

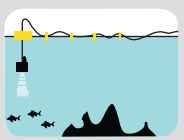


On the seashore

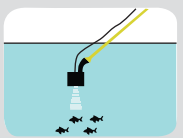
Floating sensor version



Fixed to the boat hull



Floating



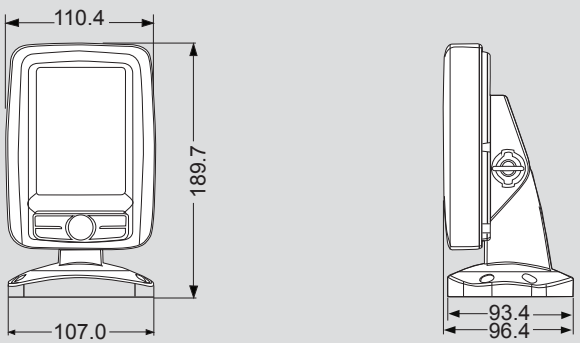
On a pole

Echofish 600

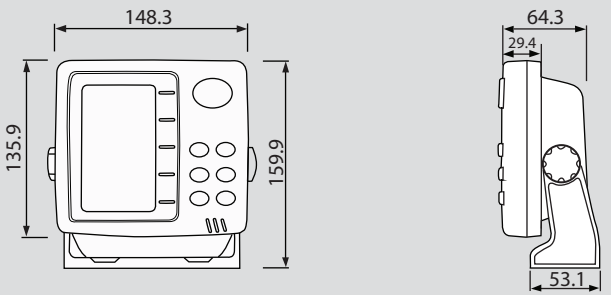
- Large FSTN LCD 4.5" (115 mm) display.
- Resolution 240 x 128 pixels.
- 4-level grayscale.
- Rugged and waterproof to IPX7 housing.
- 6-m cable
- Supplied as standard with 200 kHz mono-frequency sensor.

Echofish 820

- Large 4.3" (110 mm) TFT LCD display, daylight viewable.
- Resolution 480 x 272 pixels.
- Colour display (65536 colours).
- Rugged and waterproof to IPX7 housing.
- True 600 m (2100 feet) capability with 4000 W peak to peak output power.
- 6-m cable
- Supplied as standard with 200/50 kHz dual-frequency sensor.



Unit : mm



Unit : mm

Specifications

	Echofish 300	Echofish 400	Echofish 600	Echofish 820
Model	Handheld	Handheld	Fixed	Fixed
LCD diagonal	63.7 mm	66.4 mm	115 mm	110 mm
Resolution	128 x 64 pixels	160 x 160 pixels	240 x 128 pixels	480 x 272 pixels
Display	4-level grayscale	16-level grayscale	4-level grayscale	65536 colours
Power	4 AAA batteries	4 AAA batteries	12 V	12 V
Type of frequency	Mono-frequency	Mono-frequency	Mono-frequency	Dual-frequency
Sonar frequency	200 kHz	200/83 kHz	200 kHz	200/50 kHz
Beams	45°	20°/60°	20°	12°/35°
Surface explored at 20 m	171 m^2	31 m^2 /326 m^2	31 m^2	11 m^2 /100 m^2
Maximum depth	73 m	73 m	230 m	600 m
Simulation mode	Yes	Yes	Yes	Yes
Weight	200 g with batteries	187 g with batteries	460 g	560 g
Type of sensor	Floating or handheld	Floating	Transom	Transom

"Share Our Vision"

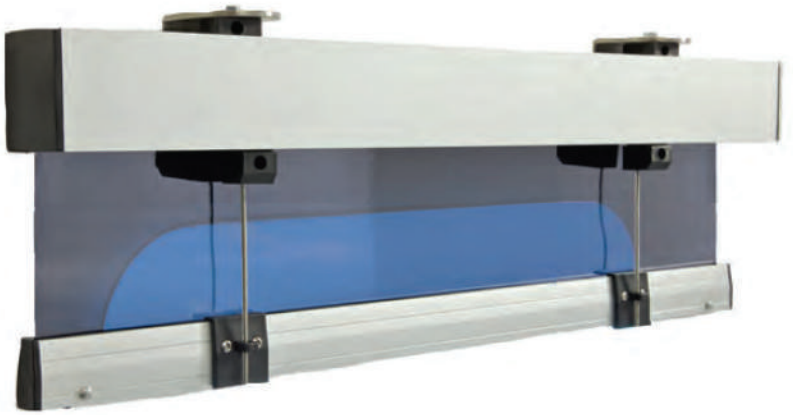
Features

- New smooth cushioned retraction
- External speed adjustment
- Glare reduction
- Over 99% UV protection
- Excellent solar energy rejection
- Shades available in Gold, Silver, Bronze and Grey
- Suitable for inclined windows
- Choice of operating and locking mechanisms
- Suitable for restricted spaces
- Made to measure
- 5 years warranty on all products

Benefits

- Improved safety when navigating
- Protection from direct and reflected sunlight
- Improves instrumentation visibility
- Protect crew from harmful UV rays
- Create a cooler working environment
- Protect fabrics and furnishing from fading

UV Windows Blinds



Lloyd's Register
TYPE APPROVAL

Sola CURE

Marine filter systems

Wavestream™ systems

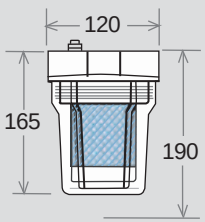
Wavestream™ prevents the discharge of oily bilge water into our seas and waterways.

Inevitably bilge water can contain fuel, lubricating oil, grease, hydraulic and gear oil. The International Convention for the Prevention of Pollution (MARPOL) states the allowable level of oil in discharged bilge water is between 0 ppm and 15 ppm.

- Effective and long lasting cartridges
- From 5o to 15 ppm
- Max pressure from 6.2 to 8 bar
- Flow rate 1-265 Lt/min to 1-40 Lt/min
- Lloyd's register type approval

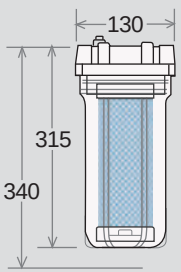
Wavestream Micro System

Flow rate	1-40 Lt/min
Max. pressure	8 bar
Max. temperature	40 deg. C
Min. temperature	1 deg. C
Connection	3/4" BSP
Cartridge part #	WS-CM



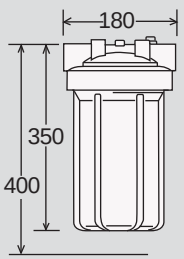
Wavestream Micro System 1

Flow rate	1-40 Lt/min
Max. pressure	6.2 bar
Max. temperature	40 deg. C
Min. temperature	1 deg. C
Connection	3/4" BSP
Cartridge part #	WS-C1



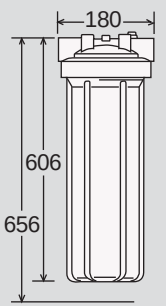
Wavestream Micro System 2

Flow rate	1-265 Lt/min
Max. pressure	6.8 bar
Max. temperature	37 deg. C
Min. temperature	1 deg. C
Connection	1 1/2" BSP
Cartridge part #	WS-C2



Wavestream Micro System 3

Flow rate	1-265 Lt/min
Max. pressure	6.2 bar
Max. temperature	37 deg. C
Min. temperature	1 deg. C
Connection	1 1/2" BSP
Cartridge part #	WS-C3



Wavestream™ 3 4STAND System

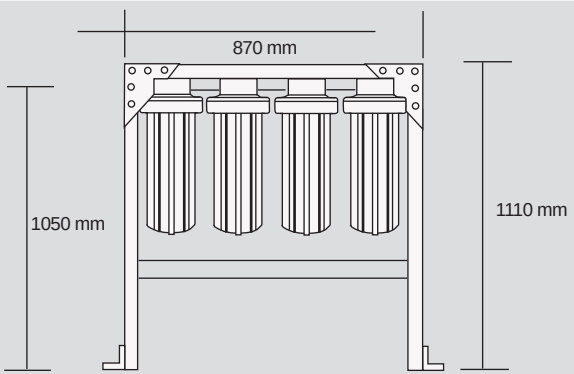
The WSS3 is used in single and multiple sets. Most shipping applications will use a set of two or four of these systems in series.

This configuration offers low capital cost while maintaining high efficiency and low maintenance. The Wavestream™ cartridge uses a unique filter media developed to extract all types of oil from bilge water. Wavestream ™ removes dispersed and dissolved oils, and importantly emulsions.

- Low capital cost
- High efficiency and low maintenance
- Extract all types of oil
- Quick and simple Cartridge change
- Lloyd's register type approval

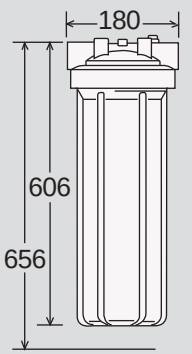
Wavestream Micro System 3

Flow rate	1-16 M^3 / hr.
Max. pressure	6.2 bar
Max. temperature	37 deg. C
Min. temperature	1 deg. C
Connection	1 1/2" BSP
Cartridge part #	WS-C3



Wavestream Micro System 3

Flow rate	1-15M^3 / hr.
Max. pressure	6.2 bar
Max. temperature	37 deg. C
Min. temperature	1 deg. C
Connection	1 1/2" BSP
Cartridge part #	WS-C3



Wavestream™ Stainless Steel

Stainless steel 316 systems are used in many shipping applications, and come in 2, 3 and 5 cartridge configurations. The cartridges are the Wavestream System 3 type which give high efficiency and long cartridge life, this is especially important for high volumes and flow rates.

Housings are design standard PD5500 and International Maritime Organisation (IMO) approved.

- 2, 3 and 5 cartridge configurations
- High efficiency and long cartridge life
- Extract all types of oil from bilge water
- Lloyd’s register type approval
- International Maritime Organisation (IMO) approved.

AUTEXIER

Marine Valve

Gate valve

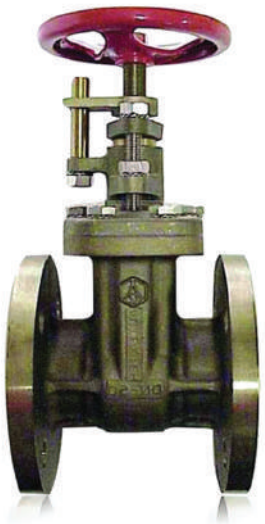
- Valve with or without opening indicator and/or locking system
- Single of double wedge, taper seat, Quick closing gate
- Bronze, alu-bronze, Copper nickel
- Water-based fluids
- Steam – 8 bar
- Oil & gas – 5 bar
- Sea water
- BV Approved

Globe valve

- Water based fluids
- Steam – 16 bar
- Non toxic gases
- Sea water
- Oil & Gas
- Bronze, alu-bronze, Copper nickel

ISO 9001

BUREAU VERITAS
Certification



Fire Hydrant and Deck valve

- Water based fluids
- Sea water
- Guillemin / Storz outlet coupling
- Victaulic / Straub inlet coupling
- Bronze, Cupro-Alu, Copper nickel

Check valve

- Water based fluids
- Sea water
- Bronze, Cupro-Alu, Copper nickel
- Bronze trim
- Stainless steel springloaded

ISO 9001

BUREAU VERITAS
Certification

ROY'S MARITIME

Floor 6, 20/16 Nguyen Truong To St
Ward 12, District 4, Ho Chi Minh City
Mail: giang.doan@roysmaritime.com
www.roysmaritime.com